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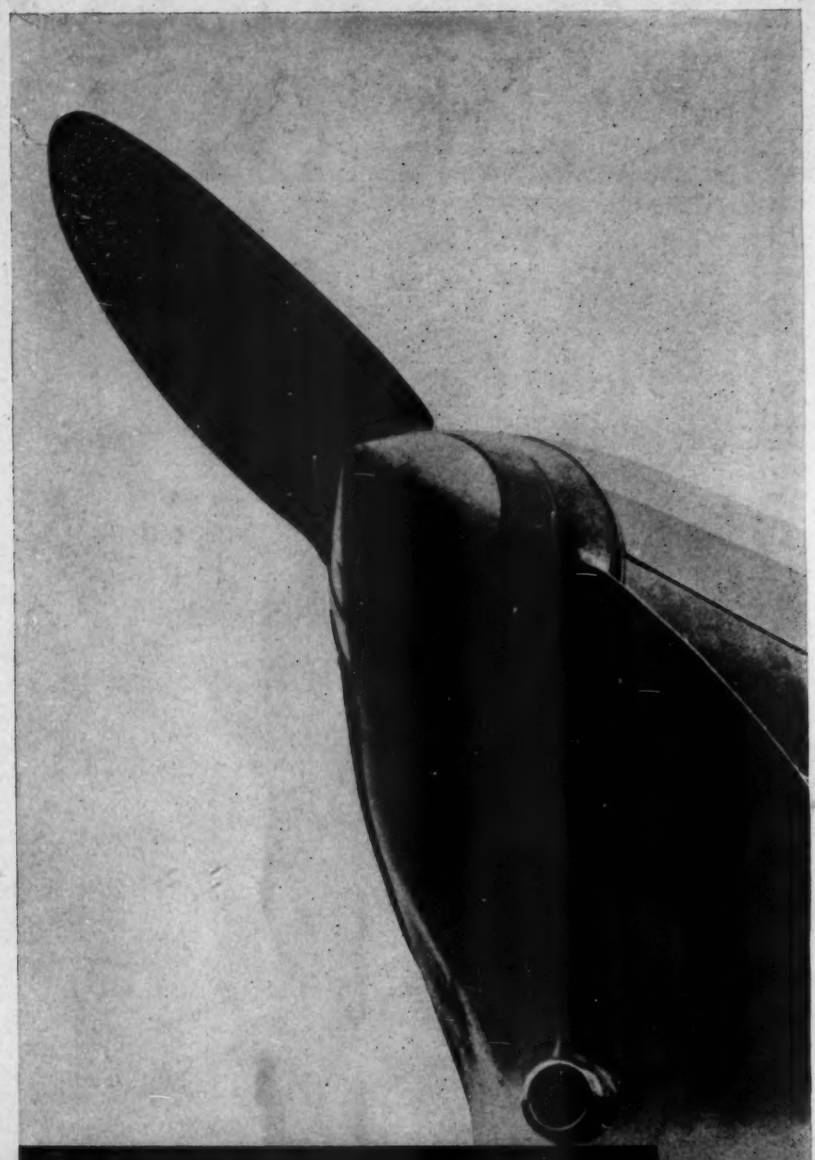

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THE OIL AND GAS JOURNAL

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August 30, 1934

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SPECIAL ARTICLES

Hot Oil Weakens Markets ---- 7
By ANDREW M. ROWLEY

Drake Park Dedication ---- 8
By R. C. CONINE

Situation in East Texas ---- 9
By L. E. BREDBERG

Helping Industry Help Itself ---- 10-11
By HAROLD L. ICKES

Kellerville Typical of Panhandle ---- 12
By L. G. E. HIGNELL

Buying Program Delayed ---- 13
By HUGH D. MALLON

Crude Allowable Reduced ---- 13

Pacific Cargo Halted ---- 13

Conroe Example of Engineering ---- 14-15
By NEIL WILLIAMS

Air Injection Prevents Boilovers ---- 16
By L. B. VAN LEUVEN

Mid-Continent Asphalt Manufacture ---- 18
By H. B. BATCHELOR

News From Foreign Lands ---- 20

The First Step (Editorial) ---- 22

The Closing Season (Editorial) ---- 22

Pipe Line Construction ---- 32

Petroleum Produced 1859-1933 ---- 32

Government Attempts Too Much ---- 33
By A. J. BYLES

Oil Control and Production ---- 33
By C. B. AMES

Diesel Rotary Defies Drought ---- 35

Large Cracking Chambers Forged ---- 36
By EDWIN CONE

Administrator's Report on Crude ---- 52

Field Problems From Readers ---- 68
By T. F. SMILEY

FIELD OPERATIONS

Late Fields ---- 32

Southwest Texas ---- 38

West and North Texas ---- 39
By L. E. BREDBERG

East Texas ---- 40
By L. E. BREDBERG

Oklahoma ---- 49
By JAMES McINTYRE

Michigan ---- 51
By PAUL A. ELLIOTT

Central West ---- 51
By GEORGE A. WHITNEY

Eastern Fields ---- 52
By SPECIAL CORRESPONDENT

Gulf Coast ---- 53-54
By NEIL WILLIAMS

N. Louisiana-Arkansas, Mississippi ---- 56
By J. R. CRUMPTON

Kansas ---- 57
By JAMES McINTYRE

California ---- 59
By L. P. STOCKMAN

Rocky Mountain Area ---- 61
By TOLBERT R. INGRAM

Canada ---- 63
By VICTOR LAURISTON

REFINING AND MARKETING

Sluggish Gasoline in Group 3 ---- 24
By T. F. SMILEY

New York Market ---- 25
By C. O. WILLSON

A.P.I. Refinery Report ---- 25

Refining and Crude Prices ---- 26-27

Tank Wagon Markets ---- 28

Natural Gasoline Manufacture ---- 29

News for Petroleum Refiners ---- 30

Chicago Market ---- 31

Technical Questions Answered ---- 65
By C. K. FRANCIS, Ph. D.

GENERAL DEPARTMENTS

Monthly Field Summary ---- 47-48

Do You Remember? ---- 66

Personal Paragraphs ---- 66-67

Natural Gas Developments ---- 69

Record of Oil Securities ---- 70

Bureau of Mines Report ---- 71-72

New Equipment ---- 77

Classified Advertising ---- 79

Index to Advertising ---- 80

OIL MAN'S CALENDAR

September

9—Wernersville, Pa., American Trade Association Executives.

10-14—Cleveland, Ohio, American Chemical Society.

11-12—Louisville, Ky., Kentucky Petroleum Marketers Association, Brown Hotel (dates tentative).

12-14—Atlantic City, N. J., North American Gasoline Tax Conference, Claridge Hotel.

14—Boise, Idaho, Western Highway Users Association.

19-21—Atlantic City, N. J., National Petroleum Association.

26-27—Columbus, Ohio, Ohio Petroleum Marketers Association, Deshler-Wallick Hotel.

October

1-5—Cleveland, Ohio, National Safety Council, Cleveland, Statler, Carter and Hollenden Hotels.

9—Michigan Independent Petroleum Distributors Association, place to be named later.

12-13—American Institute of Mining Engineers, Petroleum Division, fall meeting, Tulsa, Mayo Hotel.

16—Kansas-Oklahoma Division, Mid-Continent Oil and Gas Association, annual membership meeting. Date subject to change.

16-18—Big Four State Jobbers Association Convention, Kansas City, Mo.

29—American Gas Association Convention and Exhibition, Atlantic City, N. J.

November

5-9—Cleveland, Ohio, Automotive Service Industries Show, Cleveland Public Auditorium.

Los Angeles, Calif., American Association of Petroleum Geologists, Pacific section.

12-15—Dallas, Tex., annual meeting, A.P.I.

December

3-8—New York, National Exposition of Power and Mechanical Engineering, Grand Central Palace.

10—Phoenix, Ariz., Western Motor Vehicle Conference. (Conf. Ex. Committees).

January

7—New York, Society of Automotive Engineers, annual dinner.

Refinery Section Starts on Page 24

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Hot Oil Output Weakening Markets and Creating Uncertainty as to Future and Price Structures

By ANDREW M. ROWLEY

WHAT does the petroleum industry intend to do about hot oil production in East Texas and lack of enforcement of rules and regulations promulgated to prevent that illegal output? The present weakness in the crude and refined oils markets is due directly and solely to a substantial production of hot oil in East Texas and the sale of gasoline made from this crude at low prices.

The uncertainty which exists as to the future and the price structures which will prevail this Fall and Winter is caused entirely by well founded doubt that hot oil production will be stopped or that any of the efforts now being made to correct the situation will achieve the desired results.

The peak consumption period of the year is over. A gradual decline in demand can be expected. It is a good time to take stock in the situation and decide what must be done to maintain reasonable price levels and then to act accordingly. The industry by this time certainly has had enough experience to know it cannot expect Texas state authorities to stop crude oil production in excess of state or federal allowables. And it has no reason to think the federal authorities will do any better job. Many statements have been made of the huge mass of evidence collected against violators in East Texas and much publicity has been given to the sending of special agents and investigators into East Texas by the federal government. But hot oil production continues as before and those who expected many court suits to be filed have been sadly disappointed.

The widely heralded gasoline buying movement is said to have had one main result—the stimulation of additional production of gasoline by East Texas refiners who were assured of a market. It is true contracts provided gasoline must be manufactured from legally produced crude etc., but how many of these contracts are being adhered to and how much of the buying is done with those who have not signed contracts or who are producing crude oil in excess of allowables and running hot oil through their refineries?

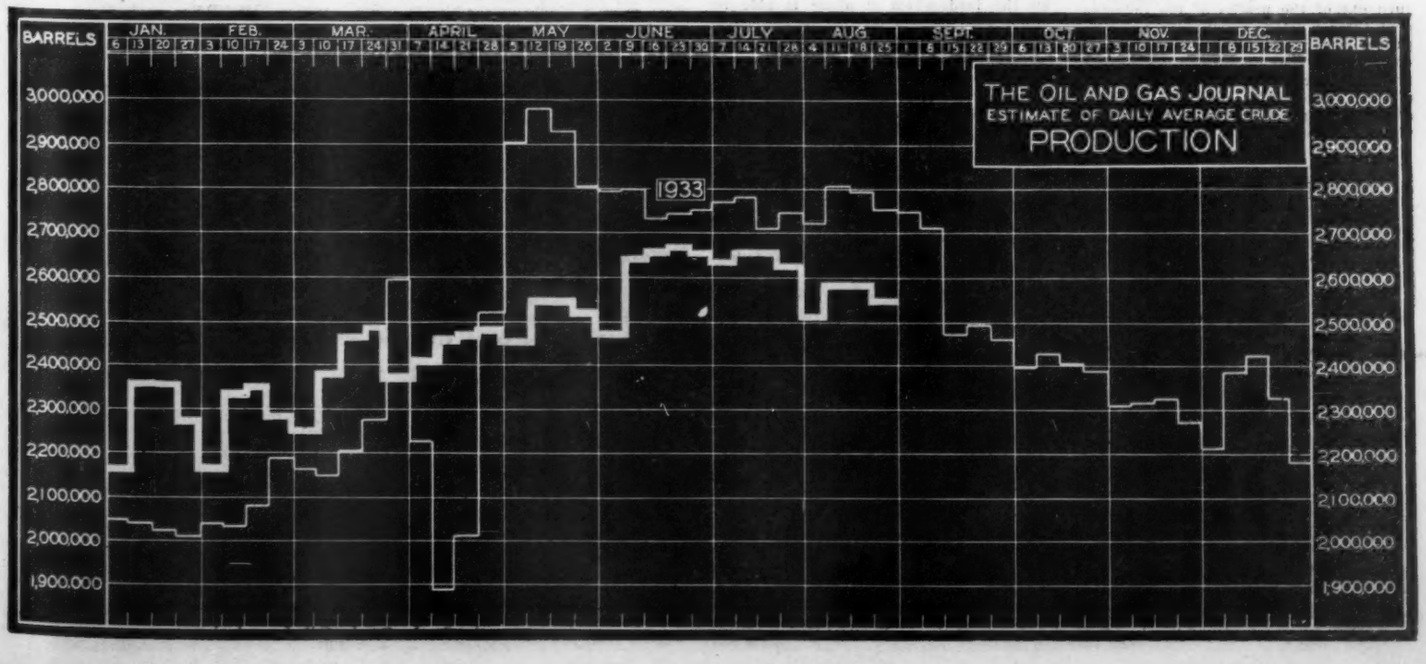
Temporary gain often blinds many persons to future conditions. The little fellow is not always to blame for the critical situation confronting the oil business. Hot oil production in East Texas is demoralizing the crude and refined oils markets and is creating a feeling of such uncertainty as to the future and the price structures that it is time the industry faced the condition squarely. Something must be done quickly if past gains are to be maintained and reasonable profits made in the future. Uncertainty, the chief deterrent to stabilization, will continue as long as substantial quantities of hot oil are produced and processed in East Texas. A splendid statistical position means nothing in the way of prices if chiseling continues.

Crude Oil Production in the United States

Estimated daily average production for the week ending August 25, a comparison with previous week and the Federal allowables follow:

	Aug. 25	Federal allowable August	Aug. 18
Oklahoma—			
Oklahoma City	133,345	.....	174,950
Seminole-St. Louis	97,110	.....	102,455
Remainder of State	246,595	.....	239,835
Total Oklahoma	477,050	480,100	517,240
East Texas—			
Lathrop	207,820	.....	203,150
Kilgore	154,655	.....	148,975
Joiner	135,745	.....	132,990
Total East Texas	498,220	.....	485,115
West Texas	147,223	.....	146,321
North Central Texas	94,354	.....	93,579
Texas Panhandle	58,695	.....	61,590
East Central Texas	52,161	.....	53,536
Gulf Coast—Texas	176,698	.....	176,792
Southwest Texas	56,956	.....	59,824
Total State of Texas	1,084,307	1,001,300	1,076,757
Kansas	135,040	131,200	134,530
North Louisiana	24,390	.....	24,760
Gulf Coast—Louisiana	72,456	.....	70,495
Total Louisiana	96,846	87,200	95,255
Arkansas	31,420	30,400	31,855
Eastern Fields (except Michigan)	103,000	102,200	102,000
Michigan	29,274	33,200	29,024
Rocky Mountain area	99,700	93,500	98,230
California—			
Santa Fe Springs	40,750	.....	41,500
Long Beach	59,500	.....	67,000
Mountain View	9,000	.....	7,000
Elwood	13,350	.....	12,500
Kettleman Hills	66,000	.....	62,000
Remainder of State	306,400	.....	318,000
Total California	495,000	490,200	508,000
Total United States	2,551,637	2,449,300	2,592,891

Decrease 41,254 Bbls. Daily



Hospitality Hall, Titusville, Pa. Tim Murphy, general manager, Daugherty refinery at Butler, Pa., second in line

Drake Park Dedication at Titusville, Pa.

Attended by Throng of Notables

By ROBERT C. CONINE

OIL CITY, Pa., Aug. 28. — Scores of leading figures in olldom attending the dedication service which transferred Drake Memorial Park into the keeping of the commonwealth of Pennsylvania, Monday afternoon heard three addresses on the subject most in their minds. Quite steady rain drenched a crowd of 3,000 to the skin.

From Secretary of the Interior Harold L. Ickes, the oil administrator, they learned that it is inevitable that the strong hand of the Federal Government would have to restore order in the petroleum industry as a conservator of the public interest because of wasteful exploitation, that state regulatory measures, however honestly enforced, were futile, as were gentlemen's agreements, and that conservation must be the underlying principle controlling the development and use of oil resources.

Mr. Ickes declared that labor must be treated fairly and given an adequate return out of the profits of the industry; that there must be square dealing and a proper regard by all for the rights of competitors; that the production, processing and distribution of petroleum is not a right personal to any man or group of men regardless of the rights of others. Above all, the nation, as the representative and protector of all the people and the defender of their rights and liberties, has a paramount interest in oil which if it is not to be derelict in its duty must be maintained; happily, if it may be in co-operation with those engaged in the oil industry, but nevertheless maintained.

E. C. Breene, producer, Oil City, Pa.

Byles Asks Assurance

From Axtell J. Byles, president of the American Petroleum Institute, came an appeal to the administration to turn as soon as may be from emergency government to one of law so that men may plan and order their affairs with assurance and confidence. Mr. Byles said the recent system was placing an appalling strain upon the Federal credit, the bulwark against chaos and anarchy, and that relief could come only by permitting private investment and initiative to take up the load which it alone is able to carry. The public's interest in price and conservation may be safeguarded by control of volume of crude oil output.

Pointing to the diversity of opinions regarding the policies which should be followed upon the expiration of the National Recovery Act next year, Mr. Byles continued: "Any present expression must be largely one of individual opinion. Some of us do not believe in fairies or panaceas or economic magic, or in guaranteed profits or in price fixing, or think that a series of rules embodying in one form or another the 'Thou shalt's' and the 'Thou shalt not's' will prove any more successful when applied to an industry such as ours than they did when applied to the liquor traffic. A cynic once said that rules are made to be broken by men of brains. Unfortunately, our experience in the oil industry during the past year has indicated that most of our rules are broken by the unco-operative to their own profit and to the detriment of those who desire to co-operate and do obey the rules. The game cannot be played that way. No government and no industry can afford to issue edicts or make rules which are flouted."

Mr. Byles paid tribute to the pioneers of the industry:

"The pioneers to whom today we pay tribute were rugged individualists. Those of us who knew and loved them would deeply resent the application of that term in an opprobrious sense. What else, if not rugged individualism, could have ignored ease, risked life and fortune, taken victory and defeat with stoic courage, wrested from an unwilling and hostile nature one of her most dangerous and priceless possessions and subdued and harnessed it in the service of mankind."

That the number is increasing of those who believe that it is impossible for a committee or board or authority to regulate, or mandate, or regiment as large and complex an industry as that of petroleum was reported by Mr. Byles. This after taking into consideration the fact that petroleum is an essential and irreplaceable natural resource, burdened with the public interest so far as prevention of waste, both physical and economic, is concerned.

Referring to the regimentation of the petroleum industry, Mr. Byles said: "If there were a single ownership, it could not be done efficiently. With multitudinous ownership and competing interests, the task is insuperable. This suggests that, beyond the supply of raw material, the hand of the Government should be removed and, in the public interest, competition as to price and quality and service begin. Some of us are still simple enough to believe that economic laws are inexorable. That if too much crude oil is not produced, too much gasoline and other products cannot be. That as a result of such a balance, price will take care of itself. That the public's interest, both in conservation and price, may be safeguarded through governmental control of the volume of crude oil allowed to be produced. Most of us agreed that failure to balance supply with consumer demand renders futile every effort at stabilization."

Would Like Ickes in Industry

The petroleum industry has been fortunate, Mr. Byles said, in having the Federal Government's responsibility placed in the hands of one of the char-

Center (holding cigaret), Thomas P. Thompson, Jr., president Pennsylvania Grade Crude Oil Association

acter, courage and intelligence possessed by the Secretary of the Interior. "Few men in public life have carried greater burdens and responsibilities," he said, than Secretary Harold L. Ickes, the oil administrator, during the past 17 months. "Could the secretary devote his entire time and thought to the petroleum industry, I can think of no one who could do more for it, or in whom there would be greater confidence," Mr. Byles said.

Governor Gifford Pinchot of Pennsylvania in accepting the shrine in behalf of the commonwealth acclaimed the New Deal in no uncertain terms. "Ancient evils are bitterly resisting," the governor said, "the efforts of the rank and file to be rid of them. The kings of finance whose pitiful and ridiculous failure to lead us out of the great depression should at least have taught the country how futile and contemptible is a front without

J. B. Fisher and T. O. Grisell, Kendall Refining Co.

a back are acclaiming and advocating all that was worst in the past as all that is best for the future."

Governor George White of Ohio acted as master of ceremonies, introducing Miss Grace G. Drake, granddaughter of Colonel Drake, and Wilber A. Smith, grandson of the driller of the Drake well.

Governor White and Mr. Byles are sons of Titusville, while Secretary Ickes was born and reared in the Pennsylvania oil region. The Ohio governor remembered that he had sold the Oil City Derrick in boyhood and had taught Axtell J. Byles in a Titusville school in 1895.

Among those present at the dedication were Walter C. Teagle, W. S. Farish, Baird H. Markham, O. D. Donnell, Richard Airey, William Irish, R. W. Gallagher, F. R. Coates, J. Edgar Pew, J. C. Van Eck, E. B. Reeser, B. F. Harris, W. R. Boyd, Jr., P. H. Curry, Frank J. Hinderliter, A. W. Leonard, Lacey Walker, W. A. Sinsheimer, Harry D. Fruehauff and Congressman William P. Cole of the oil investigation committee.

Celebration Great Success

From the opening August 24, it was evident that the celebration of the Diamond Jubilee of Oil was slated for success. The program began with formal opening of the oil equipment exposition, and closed on the first day with a historical pageant entitled "Titusville, Birthplace of the Oil Industry," and was interspersed with band concerts, sightseeing tours and sport events.

The Hall of Hospitality and the Drake Club provided through the efforts of the Pennsylvania Grade Crude Oil Association at a cost in excess of $7,000, proved outstanding features of the jubilee. Open to the general public, the hall provided a haven of refuge for the footweary and a place to talk over old times. The Drake Club was dedicated solely to the comfort and convenience of oil men.

The feature of Saturday's program was a parade of decorated floats depicting subjects related to the petroleum industry, modern and historical. Oil City, Warren, Bradford, Butler, Olean, Titusville, and various other early oil towns were represented. The sidewalks of Titusville were lined six thick with spectators who loudly appraised the efforts of the decorators along a length of several miles. The historical pageant again drew crowds, as did various sport exhibitions.

Religious services, dedicated to the event commemorated, and musical presentations were the rule in Sunday's program.

Monday's program opened with the shooting of an oil well on the old Shank farm in the morning. The dedicatory exercises opened at Colonel Drake Park, in the heart of Titusville and across from Hospitality Hall, at 3 o'clock in the afternoon. The Rev. Samuel Semple, of Titusville, read the invocation, and Mayor Arthur G. Bellen introduced the presiding officer, Governor George White of Ohio. Then followed the presentation address by Mr. Byles, the acceptance by Governor Pinchot of Pennsylvania, and the featured address by Harold L. Ickes, Secretary of the Interior and oil administrator.

The Diamond Jubilee of Oil came to a close with a Mardi Gras celebration.

Estimates of the number of visitors to the jubilee range from 20,000 to 30,000. Automobiles with Oklahoma, Texas, Kansas, Missouri, Arkansas, California, Illinois, Indiana, Kentucky, South Carolina, Maryland, Ohio, West Virginia and New York licenses spoke of the long range appeal of the commemorative event.

Scores of producing, refining, marketing and transportation company executives were attending the various events, and on Monday those who are directors of the American Petroleum Institute went into session at the Drake Club.

J. E. Moorhead and George H. Sheldon at the Diamond Jubilee of Oil

Federal Suits Looked for in East Texas; Fear Buying Plan May Be Stopped

DALLAS, Tex., Aug. 28.—Overproduction continues to run around 77,000 bbls. per day, according to those watching the situation in East Texas. Many refineries do not make reports to the commission, contrary to that body's orders.

The new tender order of the Railroad Commission met its first pitfall when 11 refineries in the field obtained a temporary injunction restraining the order. Eleven more refineries have joined the first objectors in presenting arguments to show why the restraining order should be extended until the case is tried on its merits. This hearing was to be heard in the Ninety-Eighth District Court at Austin today but it has been postponed until September 4 by Judge Charles A. Wheeler.

The injunction obtained on August 21 was amended by attorneys for the refineries to prevent the Attorney General's Department from entering penalty suits against the railroads for accepting uncertified oil or refined products for shipment. Before this amendment was obtained the railroads refused to ship such commodities for transportation. Several of the lines, however, said they would cooperate with the Railroad Commission and would not transport the commodities that did not have legal tenders. Many plants that shut down after the new tender order was issued by the commission, again started operating after the injunction was secured by the 11 plants.

It has been rumored that some of the plants joining this new attack are reconsidering that position, feeling that the major units now purchasing distress gasoline in the field under the marketing stabilization program, would cease these purchases and thereby cut off a well paying outlet. Doing anything to cause the major purchasers to withdraw from the purchasing plan would be like "killing the goose that laid the golden egg."

There are 14 so-called refineries in the field not able to make finished gasoline, therefore have been shipping semirefined products. The daily capacity of these plants is around 21,500 bbls.

The "little commission," composed of three East Texas business men, chosen by the Railroad Commission to form a body to investigate oil tenders in the field, is still on the job, and denies that there is any dissension within the body, or between it and the commissioners, but it apparently has obtained but little results.

The Federal Government is expected to announce something of importance to the industry within the next 60 days, and probably sooner. Cases are expected to be filed in Federal courts "cracking down" on violators of the code, particularly in regard to the overproduction and shipments of "hot" oil, or perhaps against operators who have failed to pay taxes on same. The Government has many men in the field, few knowing just how many, with undercover men ferreting out illegalities in regard to overproduction, illegal shipments and evasion of taxes, and although many irregularities have been uncovered, suits have not yet been instituted, awaiting the most opportune time.

Shipments

Refined products shipped from the field during the week are listed as follows:

Products—	Cars	Gallons
Gasoline	1,160	9,818,650
Fuel oil	705	6,804,895
Residuum	146	1,278,990
Kerosene	102	822,650
Distillate	149	1,219,627
Topped crude	46	429,365
Casinghead gasoline	122	1,044,450
Gas oil	283	2,375,060
Crude tops	31	256,576

Main lines transported 421,380 bbls. per day from the field, and runs to refineries in the field increased to over 94,000 bbls. per day, 28 of the local refineries not operating. There are now 83 such plants in the field. There were 1,267 bbls. per day shipped out by tank cars during the week. Deliveries over and above reported production ran around 103,640 bbls. per day, daily average production averaging 413,015 bbls.

Talk of New Commission

A special session of the Texas legislature convened at Austin today and the oil industry of the State, and probably the entire industry will closely follow the action of this body to note whether a separate oil and gas division of the Railroad Commission is to be formed. A special session of the legislature turned down such a commission by a small majority last year, but many are of opinion if the question is brought up now it will be affirmatively voted on, the present setup having been found unable to cope with the "hot" oil situation, causing much discontent within the industry and the State.

H. F. Sinclair Replies to Sir Henri Deterding

NEW YORK, Aug. 27.—Foreign countries need to put their own houses in order as well as the United States, Harry F. Sinclair, chairman of the board of the Consolidated Oil Corp., said on his return from a two months' trip to European points. He made this observation when informed that Sir Henri Deterding, head of the Royal Dutch-Shell interests, here last week, placed the blame for present unsettled conditions in the oil business on the failure of the United States to carry out all phases of the oil program sponsored by the Government.

Mr. Sinclair said that refinery products are selling below the cost of production at many points in Europe, including Holland. In regard to Russia, he said, while that country had increased production its exports were less, indicating that it was storing supplies. As to conditions in this country, he said that greater enforcement of government regulations in regards to crude oil and refinery allocations was needed.

Twelve Big Oil Tanks Explode in Argentina

Damage to the refining plant of the National Oil Co., subsidiary of the Standard Oil, was estimated at $2,800,000 following the explosion of 12 large oil tanks on August 28 near Campana, Argentina. Two persons were reported dead and scores injured by the successive blasts of the tanks, which rocked the countryside over a 30-mile area.

A turn of the wind, sending the spreading flames into the Parana River, saved the town of Campana and the big tanks of the West Indies Oil Co., another Standard affiliate, as well as other tanks belonging to the National company. Several nearby tanks, however, were emptied into the river, which ignited and threatened shipping for many hours. Fifteen other tanks were said to be still burning, after a total loss of 100,000,000 gallons of oil and gasoline.

Firemen from Buenos Aires, 40 miles away, together with marines and police, swelled the army of fire-fighters to 300.

HONORS STANDARD INDIANA

Official recognition by the Italian government was extended the Standard Oil Co. of Indiana in the form of a silver medal presented to John Porter, head of the company's aviation department, for exceptional efficiency and co-operation in refueling Italy's fleet of 24 seaplanes during its visit to A Century of Progress last summer.

Government's Aim Is to Help Oil Industry to Help Itself, Says Ickes

By HAROLD L. ICKES
Secretary of the Interior and Administrator of the Petroleum Industry*

Once again men and women have come together to do honor to the memory of a man who, in his day, was looked upon with amused tolerance by his solid and "practical" contemporaries who, lacking the imagination and initiatve which spurred him on to a great accomplishment, referred wagishly to his enterprise as "Drake's Folly." The history of the world is full of such incidents. It is so easy to laugh with the crowd at the unusual. We tap our foreheads significantly as we regard the practical dreamer who insists on hitching his wagon to a star. Then, frequently, as happened in this instance, incredulity turns to envy, envy becomes admiration, and as, in the light of history, the figure if the one derided becomes more and more heroic, we come from far and near to do him honor and to create an enduring monument to him.

Seventy-five years ago today a giant among American industries was born in this corner of Pennsylvania. I hope no one will take offense if I remark that at that time this was an obscure corner of a great state. And the man who not only begat this great industry, now ranking second among those of the country, if invested capital is to serve as our guide, but who attended the accouchement of the lusty infant as well and started it on its high career, was Col. E. L. Drake, to celebrate whose career we are assembled here today.

When Drake brought in the first oil well in this country, the machine age, as we know it, really came into existence. For the first time there was oil for illumination, oil for lubrication, oil for propulson. Go back if you can in your imaginations and try to envisage the state of society that existed when Drake, persisting in his foolishness and despite the jibes and the laughter of his contemporaries, kept on in his quest of a medium that, when he found it, profoundly affected the social order throughout the world, not only economically, but mechanically and intellectually. It is doubtful whether any other single discovery since the beginning of time has had such a profound and revolutionary effect upon human life upon this planet as the discovery of petroleum by Colonel Drake in 1859.

Colossus Among Industries

The little stranger that was born into the world just 75 years ago today soon became a very colossus among industries. It seems almost impossible that a business of such economic and social importance could have grown to its present size in such a comparatively short time. It is fitting that we should today not only celebrate the birth of this industry, but that we should pause for a moment to marvel at its size, its place in the economic order and its social importance. Probably few, if any, of those who were associated with the Drake enterprise realized that they were inaugurating an industry that was destined to play a leading part in the commercial, industrial and social progress of the civilized world.

The record does not show what the cost of the Drake well was, but the average cost of drilling a well in the United States today is approximately $22,000. It is not known what the capital investment in the oil business amounted to during its early years, but by 1906 it had grown to $800,000,000, and in 1930 it was more than $12,000,000,000. As contrasted with the one well put down 75 years ago, more than 20,000 wells are now drilled every year. The annual bill simply for drilling for oil reaches the staggering total of almost half a billion dollars. While the average driling cost is $22,000 per well, deep wildcat wells have cost as high as $100,000 each, while in some remote sections the expense may run to more than $250,000 for a single well.

Tremendous Expansion

The advent of the automobile really made the oil industry as we know it today. It provided a new use for that petroleum product known as gasoline. If we had now the oil industry as it existed even as late as 1910, there would not be sufficient gasoline to run the automobiles now on the roads of this country more than a few minutes a day. But in 1910 there began an era of tremendous expansion. Oil chemists set about not only to improve the quality of gasoline, but to increase the quantity extractable from a barrel of crude. The "cracking" method was the result. This process, applied commercially since 1912, succeeded in providing gasoline enough to supply 12,000,000 motor vehicles with fuel. Without the "cracking" method, the annual drain on our oil reserves, in order to produce enough gasoline by the old methods to supply the demand, would increase by 50 per cent the pressure on our crude resources.

The average consumption of gasoline per motor vehicle for 1933, according to the Bureau of Mines, was 711 gallons. The domestic consumption of fuel oil has increased 380 per cent since 1918, while crude oil production has increased 182 per cent in the same period. With the growth of aviation, which really got its start in 1914 during the World War, there is every likelihood of increasing demands for gasoline of a high quality, as well as for the best grades of lubricating oil that are capable of being produced. The dependence of the airplane industry upon petroleum products is shown by the fact that the early airplane engine had to be rebuilt after about 150 hours of use. The engine would operate for only about 10 hours without a "top overhauling." Today, as a result of more perfectly refined petroleum products, this "top overhauling" has been practically abandoned.

Natural Gas

Another important phase of the oil industry has been the development of the use of natural gas which was first tentatively distributed commercially for lighting purposes at Fredonia, N. Y., as early as 1824. In 1872 natural gas was piped from the Newton gasser to Titusville, a distance of 5½ miles, and supplied 250 customers with fuel and light. Consider our network of 80,000 miles of gas pipe lines today that furnish gas to hundreds of cities and towns in every section of the United States and which list approximately 6,500,000 domestic consumers and many thousands besides of industrial users. Today natural gas is not only placed at the consumer's disposal by pipe lines, it is carried into the remotest regions of the country in the form of butane, which is marketed in steel containers under pressure.

There is no substitute for petroleum in the modern scheme of life. Even if chemists could devise a substitute it is hard to imagine that it could be produced cheaply enough and in such quantities as to take the place of petroleum. We cannot begin to understand the service of petroleum to civilization until we try to picture the world as it was before lighting and heating and transportation in the modern sense came into being. We think of our mechanical age as the period of the greatest, most rapid and most spectacular advance of human beings since the beginning of the world, but this age of machinery would not have been possible had it not been for the discovery of petroleum which furnished man in quantity and at reasonable prices products that provide power, fuel and lubrication.

Oil Essential

Essential as oil is to our happiness and well-being as citizens, it is absolutely indispensable as a vital element in our national defense. Conceivably, if we had to, we could get along in ordinary times without gasoline to run our motor cars and airplanes. By strictly conserving our lubricants and with the possibility of inventions in this field by our chemists, we might keep our essential factories going. But imagine if you can the insurmountable handicap we would be under without an adequate supply of petroleum in the event of war. Lacking reserves of our own, if we were cut off from foreign markets, we would be at the mercy of any hostile nation that had or could obtain adequate supplies. Our airplanes would gather cobwebs in their hangars; our ships could not leave their ports; we would have no mechanized artillery or transport. There might not even be sufficient lubricating oil for our horse-drawn caissons, or for the rifles of our infantry. So dependent for its very life is our country upon oil that the oil industry is peculiarly charged with a public interest.

This brings me to my favorite theme in connection with oil, and that is conservation. Experience has made it clear that we must guard carefully and use prudently the oil resources that we have. We must prevent further reckless exploitation and wanton waste. We must cease producing tomorrow's oil today.

Need for Conservation

The record is a shameful one. Billions of cubic feet of natural gas, spelling comfort and convenience and riches, have been allowed to escape into the air. We have permitted unscientific exploitation and unchecked overproduction, resulting in a too great supply of crude oil and gasoline in storage above ground. We have been guilty of reckless and improvident methods of capture. With more oil produced than could find a ready market, the result has been that prices on many occasions have been forced to a point far below the cost of production. This surplus oil has been put to inferior uses and has had the effect of disrupting the market for coal, with resultant disorganization and distress to both of these two great and essential industries.

The greed of men for quick profits, without a thought for the welfare of the country or any concern for the future, even their own, has been defended not only by selfish exploiters of this valuable natural resource but by a school of political thought which has euphemistically applied the term "rugged individualism" to unpatriotic greed, ruthless waste and unparalleled selfishness. In our haste to take as much oil as possible out of the ground before other wells tapping the same pool or other areas can be brought in, we have not cared who was the hindmost for the devil to take.

It has been said, only too recently, over the signatures of responsible students of the oil industry that as much as "80 and 90 per cent of the oil is lost and abandoned in the sands. Natural gas is blown into the air and the function of gas energy disregarded in the mad scramble for 'more oil now'." These same writers bring the following indictment for criminal waste: "In Texas two wells on the top of a dome were allowed to blow dry gas in the hope that oil would eventually be drawn up. After blowing for 34 and 18 days, respectively, and wasting approximately 250,000,000 cubic feet of natural gas, oil appeared. One well yielded 10 bbls. a day, the other 20. Recently at Kettleman Hills in California 1,000,000,000 cubic feet of gas a day, enough to supply the industrial needs of

T. B. Gregory and Charles L. Suhr

*At dedication of Drake Memorial Park, Titusville, Pa., August 27, 1934.

San Francisco and the whole northern part of the state, have been allowed to escape into the air."

Probably every oil man knows personally of similar instances either of deliberate wastage in the hope that oil might follow the gas or of the blowing into the air of gas along with the oil. So far as the situation in California is concerned, it is only fair to say that the condition of which the instance at Kettleman Hills has been quoted as a horrible example has been very much improved, although much still remains to be done. Gas wastage in that state during 1932 was 93 per cent less than in 1929, the total loss having reduced from 700,000,000 cubic feet per day to 48,000.000 cubic feet.

Waste and Inefficiency

There is more to this story of waste and inefficiency. Oil pools have not been properly tapped. There has been all too little concern regarding the proper spacing of wells or their strategic location on the geologic structure in such a way as to utilize the pressures of gas and water in order to conserve both oil and gas and eliminate useless pumping costs. Moreover, instead of employing sound engineering methods to conserve the oil in its natural reservoirs underground, bringing up only so much as will satisfy current demands, millions of dollars have been spent to drill and maintain superfluous wells. This in turn has required the building of expensive storage facilities above ground where the oil is subject to losses through evaporation and occasional burning.

Such unregulated and, therefore, wasteful production, and such unrestrained competition, have, of course, had their unfortunate social and economic repercussions. It is just as true in the oil industry as it is true generally that "willful waste makes woeful want." The willful waste of oil has resulted in the woeful want of the man whose livelihood and welfare depend upon an orderly and scientifically conducted industry. If there have been flush periods of oil production at low costs followed by slackened output at high costs, there have also been seasons of quick and enormous profits followed by periods of heavy losses and of economic stress and strain. It is a fair guess that if the oil business from the beginning had been operated as a permanent, stable and steady enterprise with less of exploitation in it; if we had been satisfied to produce from the wells only what could reasonably be consumed at a fair profit; if there had been less of the get-rich-quick spirit and a greater willingness to build solidly and substantially for the future, we would perhaps not have had to go through such a distressing period as we have experienced in the immediate past and from which, as I hope, we are now permanently emerging with the help of the Federal Government.

Overwhelming Sentiment

I am glad to say that the overwhelming sentiment today among those engaged in the oil industry is in favor of a sound policy of conservation. Leaders among the independents as well as among the larger companies; refiners, retailers and those whose primary interest in oil lies in the royalties that they receive from wells on lands owned or leased by them, have all, with few exceptions, reached the conclusion that, with respect to the production, refining and distribution of petroleum and its products, private interests and the national welfare go hand in hand. If it is a loss to those engaged in producing crude oil to have to sell it below the cost of production, it is an even greater loss to the nation. It is axiomatic that the article of low cost is always most wastefully handled and used. Those interested in the oil industry now appreciate that if our oil resources had been more conservatively and prudently managed from the beginning, not only would our reserves be vastly in excess of what they are today, without any undue curtailment of the use of oil, but there would have been a greater aggregate and a steadier profit in the business for those dependent upon it.

I believe we are at the dawn of a better day with respect to the petroleum industry. Even most of those who apprehensively consented to adjust themselves to the requirements of the petroleum code have come to regard the Federal Oil Administration, after a year's trial, as a friendly and disinterested governmental agency intent upon helping the oil industry to help itself. I believe that it is now the general opinion that the Federal Government has no ax to grind, no personal or selfish interest to serve. When it was realized that it was impossible for state regulatory measures, even if honestly and impartially enforced or in good faith submitted to, effectively to redress the wrongs of the industry and cure its abuses; when it was appreciated that even model state regulations were not enforceable beyond the boundaries of the state laying down such regulations; when it developed that efforts on the part of the industry to regulate itself by so-called gentlemen's agreements were futile, then at last, reluctantly, the industry turned to the Federal Government, first for advice and then for active assistance. I believe that I am well within the mark when I say that this original reluctance to turn to the Federal Government for help no longer exists. The partnership has been one of cordial good will. I am glad to say that between the Government, as represented by the petroleum administration, and the overwhelming majority of the petroleum industry, a spirit of understanding and co-operation exists. We do not always see eye to eye, but we have never yet reached the point where we have doubted the motives or impugned the integrity of the other fellow. We find that we have been able to sit around the same table and discuss problems affecting the industry in their relation to the general welfare of the country, and so far it has been possible to arrive at decisions that have been for the greatest good of the industry and of the nation.

Unloading Diamond Jubilee number of The Oil and Gas Journal and Oil City Derrick at Oil City, Pa.

Lawless Minority

Except for a small lawless minority, which does not scruple to cut any corner, to flout any law, to tear up any regulation, to violate any of the common decencies that are supposed to control reputable business men, the oil industry is, in my judgment, determined on a course that will differentiate an orderly, well-regulated future from a disorganized and disorderly past. The oil industry now recognizes its responsibility to itself and to the country. Of course, those who are in oil are in it to make a profit but they now realize, as they have not formerly, that a reasonable and regular profit flowing from a conservatively managed business is more to be desired than the uncertain and fluctuating profits of the past with lean years following fat years; with unrestricted competition striking down the weak and undermining even the strong; with waste and inefficiency and lawlessness gnawing at the vitals of a great and essential business and adversely affecting the general welfare of the country.

Colonel Drake had the imagination to conceive the possibility of finding oil in a well thrust into the ground. He had also the courage to let his imagination be his guide. These qualities constituted his greatness. But I do not suppose that anyone will claim for him even a remote conception of what the oil industry was to become. That would have required almost supernatural powers on his part. He undoubtedly assumed that if he should strike oil, others would do the same and that, depending upon the uses to which the new product could be put, an industry might be developed that would add to the general prosperity and welfare of the country. It is not too much to suppose that, Pennsylvanian as he was, he might have taken the development of the coal fields of his native state as a rough model of what the oil industry might become. It is hardly to be supposed that he even imagined that there would be such a rush of people to discover oil pools as can be compared only with the mad quest for gold that had occurred in the preceding decade.

In a real sense, oil is liquid gold. Its importance in the industrial life of the nation far exceeds that of gold. Oil fields are much more extensive and have been discovered in many more states than has been the case with gold. The capture of the two has been profoundly different. Gold will remain in the ground until the pick and shovel of the miner tear it from its native bed. Once an oil gusher is brought in, that oil will flow from the propulsive force of the gas or of the water in the earth, with no effort on the part of man other than the creation of the vent through which the oil may be forced to the surface.

This fact explains many of the idiosyncrasies that have distinguished the oil industry from every other industry in the United States. If a man brings in an oil well, the abutting property owner, if the same pool underlies his land, is under self-compulsion forthwith to dig an offset well in order that the first well may not, in draining all the oil from the pool, take away from him property which is his. The result has been that the more producing wells that have been dug, the more producing wells that had to be dug. Overproduction has resulted. Oil has been wastefully used and improvidently marketed. Oil has been stored in vast quantities above ground and still the mad rush to discover new fields, to sink more new or offset wells has not one whit abated. The rush for oil has been a veritable stampede. Men have been ruthless, overreaching, and not always honorable in their eagerness to share in this flow of liquid gold. Heroes and criminals have worked side by side in bitter rivalry. Laws have been broken, unfair advantage has been taken, and common honesty has not always been common.

Strong Hand of Government

It was inevitable that the strong hand of the Government, sooner or later, would have to restore order in an industry that, during its more turbulent years, violently resented the intervention of government. Here was an irreplaceable natural resource, indispensable to our industry, and constituting the very life blood of the nation in time of war, which was being ruthlessly and wastefully exploited by men whose chief concern was to get quickly what profit there might be in oil, without pausing to consider the effect upon society.

So government has come into the oil industry as the conservator of the public interest. Happily, it did not have to force its way in; it came in because the industry itself began to realize that there was more to the oil business than the squeezing out of a quick profit by fair means or by foul. Patriotic men in the industry, realizing the importance of oil to their country, called upon their Government for help and advice not only in solving the present problems of the industry, but in the determination of future policies which would be for the best interests of the industry and of the country alike.

Two Outstanding Events

So there are two outstanding events in connection with the oil industry which we appropriately celebrate here today. Primarily we are assembled to add our meed of praise, to offer our tribute, to a man of great courage and faith. But at the same time it will not be inappropriate, nor will it detract one jot or tittle from the honor that we delight to do to the memory of Colonel Drake, if on this occasion we also celebrate the results of a year of happy and fortunate co-operation between the Federal Government and the oil industry. I venture to say that if Colonel Drake, the man who 75 years ago, with his eye on the future, persevered in his quest for a mineral, the discovery of which in large quantities was to revolutionize our social and industrial order, were with us today, that same vision which beckoned him to a great achievement would not be circumscribed by the mere commercial possibilities of the product that he brought into beneficial and universal use. I believe that this far-seeing man, if he could join us at this hour, would concur in the judgment of other leaders in the oil industry that conservation must be the underlying principle controlling the development and use of our oil resources; that labor must be treated fairly and given an adequate return out of the profits of the industry; that there must be square dealing and a proper regard by all for the rights of competitors; that the production, processing and distribution of petroleum is not a right personal to any man or group of men regardless of the rights of others; that, above all, the Nation, as the representative and protector of all the people and the defender of their rights and liberties, has a paramount interest in oil, which, if it is not to be derelict in its duty, must be maintained; happily, if it may be, in co-operation with those engaged in the oil industry, but nevertheless maintained.

Vision and Courage

We are met here today to do honor to the memory of a great man. We create memorials to those men and women whose lives and achievements have been such

(Continued on Page 43)

Kellerville Development Is Typical of Operations in Texas Panhandle

By L. G. E. BIGNELL
Petroleum Engineering Editor

AMARILLO, Tex., Aug. 27.—The breaking of the drought by several good rains last week seems about the most important recent happening in the Texas Panhandle, of equal importance to cattleman, farmer and oil man. Drilling operations had been slowed down because the source of water failed. In some areas deep drilled wells have produced sufficient water for all purposes, but generally speaking the oil man was relieved to see the rain even though it did make the roads bad into the most active area, the development in the western edge of Wheeler County about 100 miles east of here.

This development is along the well-known granite ridge trend that has production strung along the north flanks from Moore County on the northwestern end of the structure, for a distance of about 150 miles southwestward, or practically to the Texas-Oklahoma state line. The early wells were drilled in the granite wash, the producing formation along the north flank of the buried mountains, in Hutchinson County in 1925, and production has been found in wells drilled since then in every county to the southeast, with a deep test now being drilled in Childress County by Humble Oil & Refining Co. that may pick up production on the south side of this buried range of mountains.

The development in the Kellerville area is typical of all other fields producing from the granite wash in the Panhandle district. There is an important field near LeFors in the Center of Gray County and subsequent drilling developed other pools on the southeast trend until the string of wells connected to the Gray-Wheeler County line. A number of the major companies and independents continued to drill for and find oil and gas along this trend until in October last year Bell Oil & Gas Co. got a good well a little east of the Gray-Wheeler County line which attracted the attention of operators because the trend seemed to indicate the area between this well and the older field known as Midwest Magic Pool found in 1925 north of Shamrock, Tex., in Wheeler County, would connect into one continuous line of pools.

Leasing was active last winter and Smith Brothers started a well on their Harlan lease, nearly due south of the Bell Oil & Gas Co. well and on May 8 they had a showing of oil and finished a well making from 90 to 110 bbls. per hour with 11,000,000 feet of gas in July. The good showing in this hole while it was being completed led to a lot of leasing and starting of wells and during this summer about 100 wells have been drilled or locations made that are now drilling.

Cable Tools Used

The pay zone in this field is found at about 2,500 feet and the wells are drilled with cable tools on either portable or standard rigs. Gas is found in the dolomite above the granite wash lower zone. The field as drilled is only about three or four locations wide and many of the wells on the west side of the pool have been drilled along an east and west property line and proven productive.

This east-west trend, which is different to the usual northwest-southeast trend of the balance of the field, has led some to think that conditions in the Kellerville area are different from the other pools and the trend of the granite ridge is not continuous here. However, if a subsurface map is studied and the surface conditions checked to note that the locations have been made to meet offset requirements rather than to prove acreage or to drill inside locations it will be seen there is still much acreage to be drilled that may develop the northwest-southeast trend and ultimately connect the Gray County fields with the Shamrock area. The fact that wells too low on the structure are getting no production and those too high are getting only gas indicated underground conditions in this district are much the same as they are all along the granite ridge in the Panhandle.

The gas area lies to the south of the oil field in this Wheeler County district and in it many gas wells have been drilled and the production is being processed in the usual type natural well pressure absorption gasoline plants. These plants are handling from 75,000,000 to 150,000,000 feet of gas daily and securing about .3 of a gallon of gasoline per 1,000 feet of gas processed.

Wells cost about $10,000 each to complete in the Kellerville Pool and in one instance locations of 1 well to 5 acres were made and a line fight started that will result in very active and close drilling in this particular spot.

Like most wells of the Panhandle district the wells in this new pool in western Wheeler County are being put on the pump soon after completion and are pumped by beam and gas engines and central powers.

Other Activities

The Panhandle oil fields are for the most part enjoying a revival of activity that is marked because there has been so little doing in the area since 1929. After the intensive drilling campaign that started in 1926 and ended in 1929 was completed enough wells had been drilled and sufficient oil was available to meet all needs—in fact, there was more oil than market demand and with low prices the whole area suffered from lack of incentive to produce or develop the leases even though thousands of good locations remained undrilled.

The owners of properties did only such work as was absolutely necessary and drilled only such wells as lease or offset requirements demanded. A minimum number of field men was employed, practically no new equipment was purchased and no work done on the wells to keep up or increase rate of production.

After the intensive activity during the development period this change of pace was very noticeable and it continued until the summer when the operators in all pools started to employ more men, purchase needed equipment and clean out wells and increase production, at the same time lowering their production costs. In other words, the area came out from under the cloud cast by the extreme activity in East Texas and business picked up steadily.

Like all other fields the Panhandle district is operating under proration and is now producing from 2,113 wells about 61,620 bbls. daily, an average production per well of about 29 bbls. Of this oil about 25,000 bbls. is refined locally and the pipe lines handle the balance. The area's allowable is 56,000 bbls. daily and the well production is based upon the 20-bbl. marginal well allowable permitted every well with an additional allowable of 12.52 per cent of a well's potential after the 20-bbl. marginal allowable has been deducted. If a well is capable of producing 500 bbls. daily, 20 bbls. is first deducted and then the allowable is based upon 12.52 per cent of the remaining 480 bbls.

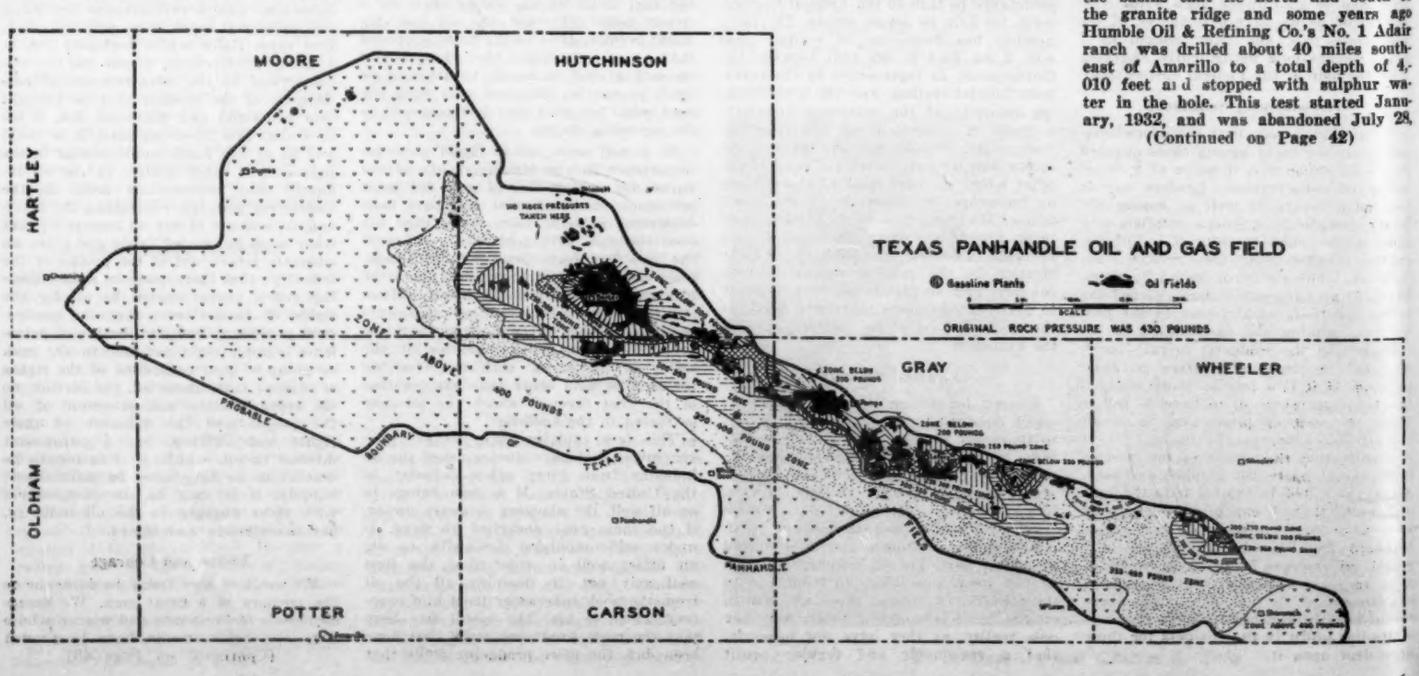
The water produced with the oil seems to be a variable quantity—in some pools like Hutchinson County that have been producing for a long time a considerable volume of salt water is produced and it is disposed of by collecting in surface ponds and permitting it to evaporate or sink into the soil. Some wells in Gray County, another of the older developed areas also make a lot of water. Where there is excessive water there is usually considerable corrosion of well and surface equipment. Tubing corrodes rapidly in some wells, and steel lease tanks last but a short time on other leases. Where the tank corrosion is rapid wooden tanks have been substituted with marked success and as they can be made gas tight they are being used extensively in all corrosion fields.

While it is true that the daily allowable for the Panhandle can be secured from the wells now completed, especially as they are being reconditioned and put in good order, still there is a considerable amount of drilling activity all along the granite ridge in addition to the intensive development in the Kellerville Pool.

Deep Tests

For many years the geologists have been interested to learn the conditions in the basins that lie north and south of the granite ridge and some years ago Humble Oil & Refining Co.'s No. 1 Adair ranch was drilled about 40 miles southeast of Amarillo to a total depth of 4,010 feet and stopped with sulphur water in the hole. This test started January, 1932, and was abandoned July 28,

(Continued on Page 42)



Buying Program Up to Attorney General; Cargo of East Texas Gasoline at Tacoma Temporarily Restrained From Unloading

By HUGH D. MALLON
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Aug. 27.—Approval by the Department of Justice of the proposal for extending the buying of distress gasoline beyond the State of Texas, which has been submitted by the newly organized program committee, is expected shortly. A favorable report by the department will open the way for immediate action on the part of this agency as the plan has been approved in its entirety by the Planning and Coordination Committee, and also by the Petroleum Administrative Board. However, the signature of Secretary Ickes, oil administrator, has not and will not be placed on the proposal until passed upon by the Attorney General.

Opinion of oil men and officials in the petroleum administration is that this arrangement for taking care of the gasoline market can be successful. It has been said that if the production of "hot" oil was stopped there would be nothing to hinder its immediate success. The Petroleum Administrative Board is now working on this question and their hopes are high.

Stopping the Papoose

A new method of coping with the illegally produced gasoline has just been demonstrated by the oil administration and the division of investigations of the Department of the Interior in their handling of the tanker Papoose when it attempted to dock at San Francisco with 70,000 bbls. of gasoline supposed to be manufactured from "hot" oil. The intention was to dump this gasoline in California, and such action was viewed with alarm by California marketers whose territory has only recently started to return to normalcy by virtue of the Pacific Coast Petroleum Agency agreement. Dumping this amount of gasoline on the market at this time would have destroyed practically all of the benefits which have accrued from the operation of this agreement.

The vessel failed to land when a state law was invoked which declared it illegal to bring into the state crude petroleum or petroleum products unless such petroleum or its products were legally produced. Since the cargo was not accompanied by a certificate showing the legality of the gasoline no showing could be made by the operators of the vessel as to whether it was or was not "hot" gasoline. Efforts of attorneys for the tanker to secure this certificate from the Texas Railroad Commission were blocked by the petroleum administrator at Austin, Tex., last Friday, after the ship had left the port of San Francisco. Charles I. Francis, attorney in Texas for the petroleum administration, and Capt. E. N. Stanley, chief enforcement officer for the Texas Railroad Commission, defeated the application for the certificate.

A complete investigation of all the details surrounding the transaction was ordered by Louis Glavis, director of the division of investigations, on August 7, after he had been advised by J. Howard Marshall, member of the Petroleum Administrative Board, and W. H. Eaton, an attorney for the board, who were in San Francisco, that the gasoline was on the way and suspected of being "hot."

Washington headquarters were advised by Special Agents Victor J. Buthod and S. S. Christensen in East Texas that a large part of the cargo on the Papoose appeared to be contraband gasoline. It was further disclosed that the tanker was loaded from the terminal owned and operated by the American Petroleum Co. of Houston, Tex. The report stated that the gasoline was shipped by the Eastern States Oil Co., a brokerage firm. G. L. Townsen, secretary of the American Petroleum Co., when questioned by the agents, said the gasoline was taken from three storage tanks of the company, and that all gasoline was poured into these tanks without a record of whether it was made from legally produced or illegally produced oil.

Report of Federal Agents

The following statement was included in the report of the agents:

"The American Petroleum Co. has consistently refused to furnish information relative to the operations of this company, and refused to allow any sampling of their tank car shipments, or permit agents of this department on the refinery property."

Tank car shipments from the point of gasoline and crude production in the East Texas Field to the American Petroleum Co.'s refinery and tanks were checked also. Shipments from July 9 to July 26 to the company were checked and it was found that crude and gasoline had been received from the Roco Refining Co., Ocean Refining Co., Union Refining Co., Kilgore Refining Co., Lone Star Refining Co., Acme Refining Co., Long Gregg Refining Co., Shoreline Refining Co., Gilliland Refining Co., Chief Refining Co., Lizzie Refining Co., Alamo Refining Co. and the East Texas Refining Co. Several of these companies, it was reported by the agents, had never received any crude oil on approved tenders, and the crude oil from which they processed other products was illegal.

Gasoline delivered by these refiners, or made from crude processed by them was poured into the storage tanks along with other gasoline considered legal. The result is that the gasoline is commingled, some of it "hot" and some of it legal, but for the purposes of the law it is all considered "hot," and from available information it is said virtually all of it is illegal.

After accumulating this information, which was sent to Mr. Marshall, Mr. Eaton and Special Agent Edward W. O'Hara, of the division of investigation, Mr. Glavis notified Agent O'Hara on August 16 to be ready to move against the Papoose, whose cargo it had been learned by Mr. Marshall was consigned to the Fletcher Oil Co. Papers were prepared in East Texas and in California for action against the tanker when she attempted to land. The co-operation of the Department of Justice and of state authorities expedited and assisted the action of the petroleum administration in preparing to stop this cargo.

When the Papoose came into port in California on August 20 she was met at the dock by state officials and Federal agents who prevented the unloading of any of her cargo. To keep the tanker from discharging her gasoline it was necessary to rout Governor Merriam of California from bed in the middle of the night to sign some essential papers. These papers were signed and the cargo remained intact aboard the ship when she pulled out of the harbor on August 22 headed for Tacoma, Wash. When she left Houston she was destined for San Francisco, and/or Tacoma, and/or Vancouver.

Checked at Tacoma

The Papoose arrived at Tacoma, Wash., Sunday morning. Federal Judge Bowen at Seattle had previously issued a temporary restraining order resulting from the filing of a complaint in equity and this was served to the master of the Papoose by U. S. Marshal Green, who boarded the coast guard cutter Arcata and intercepted the tanker. The Papoose anchored pending action which will be heard at Tacoma September 1 to make the injunction permanent. If the Federal authorities succeed in preventing discharge of the gasoline they will follow a similar procedure with the tanker Republic, now en route to Pacific ports.

Secretary Ickes, in commenting on the shipment of this gasoline stated: "I have instructed the agencies of the oil administration to take whatever steps are necessary, in co-operation with the Department of Justice and other Federal and state authorities, to prevent the landing of cargo aboard the Papoose. Information is being collected in East Texas where gasoline originated, to support legal action by the Department of Justice, if decided on."

The Customs Bureau, through Ely Frank, Jr., acting commissioner of customs, has come to the aid of the oil board. Mr. Frank issued instructions to Saul Haas, collector of customs, for the Seattle district, not to allow the Papoose to land her cargo unless it is shown conclusively that the gasoline was produced in compliance with all Federal regulations. Apparently, this proof cannot be procured by the owners, due to the information collected by the special agents in East Texas, and now in the hands of the officials at the port. After Tacoma the only port at which the gasoline may be discharged will be Vancouver, British Columbia, as the clearance papers, made out when the ship left Houston gave that as the only other port at which she might dock. What kind of a reception the Canadian officials will give to this vessel and her cargo cannot be predicted. However, it is not expected that the cargo will be any more welcome there than it would have been in San Francisco or Tacoma.

Holding Off Others

The success with which this move against the Papoose has met is probably holding in Texas ports other tankers which it had been anticipated would be utilized for shipments to the West Coast. A cargo of gasoline, it is rumored, had been loaded in the tanker Republic, which was scheduled to leave for western ports around August 20.

It has been hinted that perhaps, by invoking the "hot" oil regulations, and with the co-operation and assistance of other Federal authorities, water shipments of gasoline and refined products from the Gulf Coast to eastern ports could be better regulated in the same manner, namely by refusing to allow the docking of ships with questionable cargoes of refined products. This, it is believed, would have a very beneficial effect on marketing conditions on the East Coast, as it would eliminate the possibility of glutting the eastern market with a surplus of gasoline produced from "hot" oil at prices below the market.

However, the suggestion was made that perhaps such a procedure might cause a backing up of such products into the Mid-Continent market, but it is believed that, if such a condition in the Mid-Continent became apparent, the situation could be remedied very quickly and effectively by the petroleum administration.

Allowable Production of Crude Oil in September Cut 107,600 Bbls. Daily

WASHINGTON, D. C., Aug. 27.—A decrease of 107,600 bbls. daily in the national allowable production of crude oil was authorized by Secretary Ickes, oil administrator, in fixing the September total of 2,341,700 bbls. daily, as compared with 2,449,300 bbls. for August. The allowable becomes effective at 7 a.m. September 1.

This decrease resulted primarily from the normal seasonal decline in gasoline consumption as well as from an expected drop in gasoline demand due to the drought. An additional fact tending to lower the crude oil allowable in September was a necessity for reducing excessive gasoline inventories which are still considerably above a sound economic level.

Virtually all of the states shared in the decrease in the national crude oil allowable, no state receiving an increase. The three leading producing states, Texas, California, and Oklahoma, were reduced 32,900, 33,200 and 19,100 bbls. from 1,001,300; 490,200 and 480,100, respectively. Other reductions were as follows: Arkansas, 1,100 to 29,300; Illinois, 500 to 12,000; Indiana, 100 to 2,200; Kansas, 10,500 to 120,700; Kentucky, 200 to 11,500; Michigan, 3,900 to 29,300; New Mexico, 900 to 45,800; New York, 500 to 10,100; Ohio, 800 to 12,000; Pennsylvania, 2,300 to 38,400; West Virginia, 500 to 11,100; and Wyoming, 1,100 to 33,900. Allocations for Colorado, Louisiana and Montana remained unchanged.

The estimate of the required daily production of crude oil to balance consumer demand for petroleum products during September has been found by the Department of the Interior to be 2,341,700 bbls., and the department, after a careful, scientific and impartial investigation, collection and evaluation of all available, pertinent data, has found as a fact that the daily net reasonable market demand for crude petroleum from the several producing states during September will be as follows:

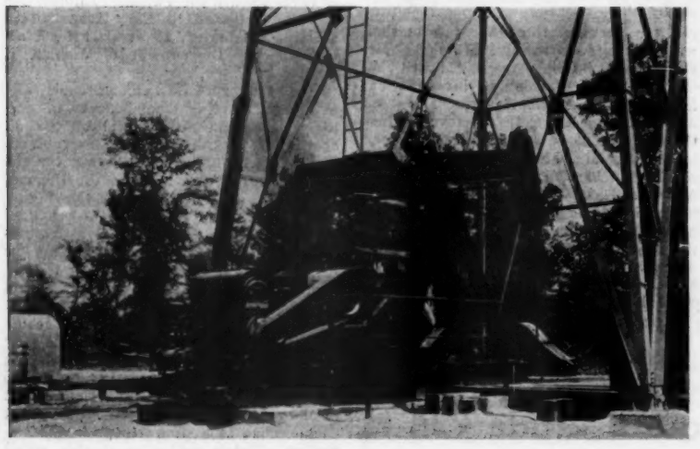
State—	Daily av. (bbls.)
Arkansas	29,300
California	457,000
Colorado	2,900
Illinois	12,000
Indiana	2,200
Kansas	120,700
Kentucky	11,500
Louisiana	87,200
Michigan	29,300
Montana	8,800
New Mexico	45,800
New York	10,100
Ohio	12,000
Oklahoma	461,000
Pennsylvania	38,400
Texas	968,400
West Virginia	11,100
Wyoming	33,900
Total	2,341,700

These amounts are recommended to the states and allocated as the operating schedules during said period, effective as of 7 a.m. (standard time at place of production) September 1, 1934.

Conroe Area Good Example of Successful Application of Modern Engineering Principles

By NEIL WILLIAMS
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Aug. 27.—If restricted production, uniform withdrawal of oil, and efficient flowing of wells mean anything in obtaining the highest ultimate recovery from the reservoir operation the Conroe Field will prove it. In no other field, except some which are individually owned or in which interests have been pooled, have modern engineering principles been carried out so consistently in production practices. Under such control proration is being given its first real trial.



Humble Oil & Refining Co.'s South Texas Development Co.'s "A" lease. Ideco pumping rig, Hercules motor

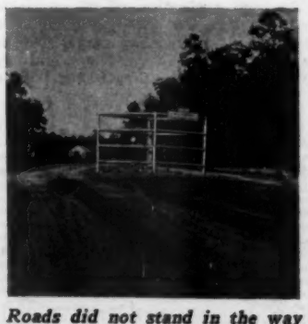
Through co-operation of virtually all producers in the field and representatives of the Railroad Commission, every effort is being made to conserve and utilize to the greatest possible advantage the natural energy of the reservoir to prolong not only the flowing life of the field but also to minimize the intrusion of water to the end that the total recovery of oil will be increased. Such efforts have been made in East Texas and other fields but generally the full benefits cannot be determined due to the inability to get all producers to observe restrictions and regulations.

Systematic Basis

To begin with, Conroe has been drilled up on a systematic basis of one well to 20 acres and so strictly has this uniform spacing been followed that out of a total of about 820 wells there are only 104 wells on units of less than 20 acres. Of these, only 11 are on units of less than 10 acres. The average density of the field at this time is one well to 18.8 acres, which facilitates a uniform, consistent withdrawal from the reservoir.

In the production of these units, the daily allowable is allotted to the wells on a basis of 50 per cent for acreage and 50 per cent for potential. With a total allowable for the field of 47,700 bbls., a well on a 20-acre unit now is allotted 31 bbls. on a basis of acreage plus 5½ per cent of its 24-hour potential flow through a quarter-inch positive choke. It is conservatively calculated that the field might yield as much as 100,000 bbls. daily without creation of any waste. Despite the restriction of production to 47,700 bbls. daily, the output of the field, through co-operation of the operators, is being held to that figure.

The drilling program at Conroe now is practically completed. Only 10 rigs, of which three are on workovers, are running and it is believed that not more than a dozen more wells will be started. Approximately 15,400 acres have been drilled up and in this the main producing horizon, the Conroe sand, has been fairly well defined. It is estimated that an additional 1,500 to 2,000 acres may be productive in the upper Cockfield sand around the edge of the field but under the present conditions there is little inducement for developing this anytime soon.



Roads did not stand in the way of the uniform spacing regulations which were carried out in the development of the Conroe Field so when the proper measurements for spacing placed the location of the above well in the middle of a main highway, the well was drilled right there. This is Humble Oil & Refining Co.'s No. 1 Mrs. P. Collins, a producing well in the middle of one of Conroe's main roads

Correcting Troubles

With the field completely drilled up and an orderly production provided for from a uniform well spacing and proration standpoint, operators now are cooperating in a definite program to attain further ideal conditions by correction of mechanical or other local troubles in their respective wells. While every effort has been made to drill and complete all wells properly in regard to the most efficient production of the reservoir, many wells were drilled before operators were familiar with all the conditions, consequently some of those wells have been found imperfect in the light of what is known now.

In view of the plan which is being adopted of plugging back wells as fast as water appears, theoretically there never will be any appreciable water production at Conroe. It is particularly desirable there that production of water be prevented entirely or else curtailed to a minimum as the disposal of any great volume of water would present a problem of a serious nature. As it is, there are no nearby streams of sufficient capacity to handle the water so that it could be run off, and at the same time the climatic conditions are such on the Gulf Coast that evaporation, or a combination evaporation run-off plan, would not be feasible. It is possible that a salt water canal could be excavated to the Gulf or a salt water pipe line laid but such projects would be very costly.

Water Problem

So far the production of water has not been of such extent as to prevent any difficulties of disposal. To date only 34 wells have made any water and in most of these the percentage has been very small. Six of the 34 wells have been plugged back successfully and are entirely clear. Attempts were made to plug back three others but these were failures, principally because they were edge producers and too close to the water level. These either have been abandoned or shut down and consequently are off the water list. Five others also are dead, standing, or else working over. Thus, only 20 wells now are actually producing water and efforts will be made shortly to correct the situation in these, so that not only will the problem of disposal be forestalled but also that the efficiency of production operation might be increased.

West Production Co.'s No. 1 Foster, standard rig

A number of the above water wells have been the result of a misunderstanding as to the water level of the field. Early in the development it was determined from certain key wells around the area that the water was at approximately minus 4,990 feet, and consequently operators have been using this depth as a maximum without other consideration in drilling into the pay horizon. However, in the list of wells which have made water there are some with depths ranging as high as minus 4,965 feet, or 25 feet above the accepted water table. It is conclusive, in view of the fact other wells with bottoms close to the minus 4,990-foot mark have not shown water, that the water table has not risen to minus 4,965 feet, especially since all the wells have been produced consistently.

Engineers lately have been making a study of the puzzling situation and have offered a tentative explanation. It was revealed in the explanation that there is a certain, definitely identified shale break which extends through the horizon continuously across the greater part of the field. This break is encountered at varying depths according to position on the structure, and wells which have drilled through this break, regardless of the depth above the accepted water table of minus 4,990 feet, have made water, while on the other hand, wells which have not penetrated the break, although drilled to depths close to the water table, have not as yet shown water. Had this condition been known earlier in the development of the field all wells would have stopped drilling above the break.

Gas-Oil Ratio

Another concern of Conroe operators has been to produce their wells with the

Alpha Petroleum Co.'s No. 2-C South Texas Development Co. Mission air lift

lowest possible gas-oil ratio. It has been learned that excessive gas-oil ratios in the majority of instances, particularly in those wells producing from the main Conroe sand, are due to improper setting of wells. Characteristics of wells which are set correctly in this sand is that the gas-oil ratio is constant no matter how great or how little the rate of flow. The gas-oil contact of the field is minus 4,850 feet (subsea) and wells which have been completed with casing seated below that point produce with a minimum gas-oil ratio, as low as 400 to 1, while in those wells seated above that level the ratio increases sharply with the amount of the gas zone taken in.

Since this fact has been definitely established, it has been the practice of all operators to set all wells below the 4,850-foot (subsea) point, and as rapidly as possible those wells which were completed above that level in the earlier development of the field are being corrected

Mortex Oil Corp.'s No. 1 South Texas Development Co. Bryant stage lift

mechanically. Six wells have been worked over for this purpose. This work has been done in some cases by running a small string of pipe or liner with a back off valve and sealing it off to the casing, and in other cases by packing off the upper portion of the screen which is above the gas-oil contact.

A total of eight wells, which have been strictly gassers or whose gas-oil ratios have been excessively high due to other than mechanical reasons, have been shut in. In most of these wells the oil section of the producing horizon consisted mostly of shale or was in water, leaving only the gas zone to be productive.

Preserving Gas Cap

It is very essential at Conroe, according to engineers who are co-operating to make Conroe the ideal field, that every effort be made to preserve the gas cap or zone intact as much as possible. This cap, which consists of a free gas area with an original pressure of approximately 2,175 pounds overlies a large portion of the producing horizon of the main Conroe sand, and by prevention of dissipation of this gas and by conservation of this natural energy therein and utilization of it in maintenance of reservoir pressure the flowing life of the field will be greatly prolonged.

Preservation of the gas cap as nearly intact as possible, coupled with the ratable withdrawal of oil from the reservoir, is expected to facilitate the maintenance of consistent reservoir pressures and a uniform rise in the water table. The average bottom hole pressure of the field on the last check, which was August 5, was 2,093 pounds, this being a decline of only 2 pounds from the average of the April 5 check. During the four months' period between the two bottom hole pressure surveys approximately 6,195,000 bbls. of crude were withdrawn from the reservoir, which reflects a very small drop in pressure per 1,000,000 bbls.

Flowing Life of Field

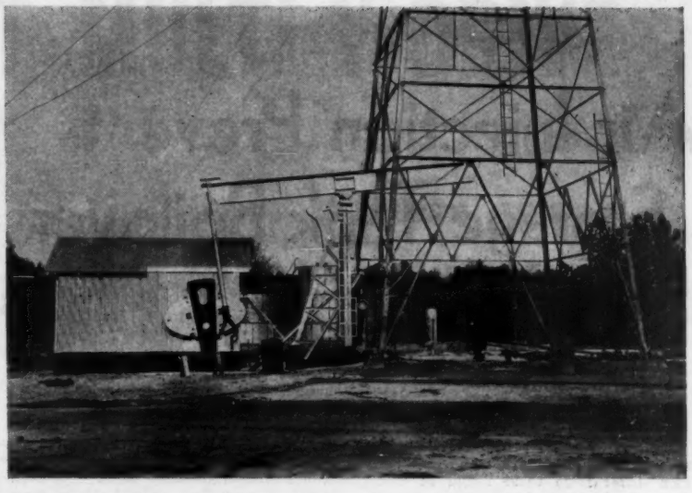
At the present rate of production and pressure decline it has been conservatively estimated that the flowing life of Conroe will be at least 15 years and that a total of more than 580,000,000 bbls. will be recovered. Theoretically, all the oil will be recovered by flowing and this may be largely true from the main producing horizon. So far there are only nine wells on artificial lift. Most of these wells are believed to have been completed in the upper Cockfield sand. This is a sand about 15 feet thick overlying the Conroe, or main reservoir, at an interval of around 150 to 175 feet. Over the main part of the field this sand carries only gas, the oil being found in a narrow strip downdip around the edges of the field. In this sand several small low pressure areas have developed, principally on the extreme southeast end of the field.

Artificial Lifts

In the artificial lifts to date there are two Lufkin units, one standard pumping rig, one Ideal pumping unit, two Hughes plunger lifts, one Mission lift, one Western Pneumatic lift, and two Bryant Stage lifts. The wells on which the gas lifts are installed now are flowing under their own pressure as a characteristic of the Conroe oil is that it carries considerable gas in solution which can be released with a small amount of agitation, and while there might not be sufficient gas pressure to flow the well naturally there is enough to operate one of these patented valve lifts once it is kicked off.

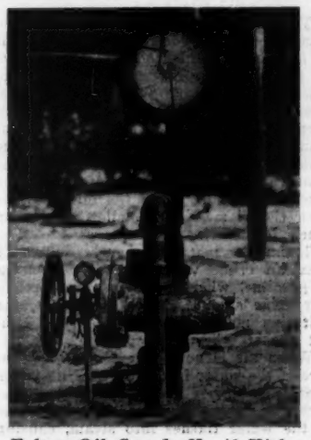
One of the pumping units is on the Humble Oil & Refining Co.'s No. 5-C South Texas Development Co., located on the extreme northeast edge of the field. This is a well which, in sand at a total depth of 5,174 feet, failed to produce.

Sun Oil Co.'s No. 8 Stewart, Hughes lift



Hamill-Smith's No. 1 South Texas Development Co. Lufkin unit installation

The rig was moved off and the well left standing. Later it was found to have filled with oil so that the pumping unit was installed. It has been pumping about



Feltex Oil Corp.'s No. 4 Kirby-Bertrand. Western pneumatic lift

15 bbls. per day with eight 42-inch strokes per minute, a 35 horsepower Hercules engine furnishing the power. It is possible this well may be in an entirely different or stray sand. Several of the wells in which gas lifts have been installed have been steadily building up pressure to a point that they now are holding around pressures ranging from 250 to 350 pounds.

Electrical Coring

An electrical coring method has been tried out lately in at least two instances as an aid for operators in determining the correct gas-oil contact or the water level in their wells to facilitate working them over. In one instance (Texas Co.'s No. 18 Moody), the well, plugged back according to findings of the method, was successful in shutting off water. In the other case (Tide Water Oil Co.'s No. 8 Dean), the well was reset on the strength of the electrical coring picture, and as a result the gas-oil ratio was reduced from 16,000 feet per barrel to 619 feet per barrel. In the latter 20 additional feet of sand was indicated which the company did not know it had.

Gasoline Plants

Two gasoline plants are operating in the field. That of Humble Oil & Refining Co. is handling approximately 10,000,000 feet daily, principally from its own leases, while the Midland Gasoline Corp. is running about 21,000,000 feet daily from leases of various producers over the entire field. Taking the gas at the plant under vacuum, Humble Oil & Refining Co. is getting a recovery of around 1½ gallons per 1,000 feet. However, this company now is engaged in elevating all its separators on 30-foot steel towers, and with the completion of this undertaking the recovery of gasoline should be materially increased. The elevation of separators will permit the flowing of oil by gravity to field tanks and in turn will allow the reduction in separator pressure, increasing the content of the gas to the plant. The Midland plant, on the other hand, is operating under pressure, receiving gas at the plant around 75 pounds, so consequently the content of the gas is considerably lower. A large part of the gas not returned to the leases for fuel is taken by the United Gas Co., which recently completed a booster station and line from the field to connect with its trunk system.

California Association Invitation to Institute

LOS ANGELES, Calif., Aug. 25.—A resolution to invite the officers, the board of directors, and the members of the American Petroleum Institute, to hold the 1935 annual meeting of the Institute in Los Angeles was adopted by the board of directors of the California Oil and Gas Association. Acceptance of the invitation was urged on the grounds that an important segment of the official personnel and the membership lives in California, that eight years have passed since an annual Institute meeting was held here, and that the California fields, which supply nearly 20 per cent of the total crude production of the United States, are worthy the close study of the entire industry, since California, with its deep-lying producing sands, has long been considered a proving ground for new equipment and methods. Civic officials of Los Angeles and civic bodies have expressed a willingness to join with the association in extending the invitation.

SUN PIPE LINE ISSUE SOLD

Brown Harriman & Co. and Edward B. Smith & Co. announce they have placed privately a new issue of $4,000,000 Sun Pipe Line Co. 3½ per cent debentures, dated October 1, 1934, and due from October 1, 1935, to 1940, in addition to $6,500,000 Sun Oil Co. 3¾ per cent debentures previously reported. The latter issue is due September 1, 1939, callable at any time as a whole or in part on 30 days' notice, at 101 to September 1, 1935, with the call premium decreasing one-quarter of 1 per cent each year thereafter. The prices brought by the debentures were not announced.

Sun Oil Co. has called for redemption on September 7 approximately $7,463,500 of 5½ per cent debentures due on September 1, 1939, and Sun Pipe Line Co. will redeem on October 2, $3,500,000 of 5 per cent debentures, due on October 1, 1940.

Air Injection Prevents Storage Tank Boilovers

By L. B. VAN LEUVEN
Socony-Vacuum Oil Co.

Fig. 1. The above photograph shows the boilover in the tank at the right not equipped with air. In this picture you will note that the tank being blown is not even burning very badly

Fire extinguishment in refineries, like fire prevention, includes many problems which differ from those found in other industrial plants. It is usually necessary to arrange buildings, tankage and equipment in such a way as to facilitate fire-fighting and fire protection. There are products that defy expeditious extinguishment once a fire has gained some headway. Among the products that present a serious problem is crude oil, because of the fact that when crude oil in storage tanks becomes ignited and burns a sufficient length of time to heat water and b.s. contained therein, boilovers occur which may entail untold property damage and loss of life. This is true, notwithstanding that it is general practice to compound tanks by surrounding them with fire banks or fire walls, the areas of which are often 50 to 100 per cent in excess of the carrying capacity of the tank involved.

Every unit in the oil industry has experienced a sense of helplessness and dread during a tank fire, not so much because the fire could not be put out, but because of the fact that if the tank did boil over, there would be no telling where the catastrophe might end. We believe, however, that a great deal more confidence will prevail when it is known that by blowing with air a crude oil tank on fire, it will not boil over and endanger the lives of those occupied in safeguarding other property and preventing the spread of fire.

An outstanding feature of air admission is that it decreases the flame, and consequently the heat generated, thus permitting the application of extinguishing materials at close range. Fire draft above the burning liquid is also considerably reduced, thereby preventing loss and increasing the efficiency of the materials used to extinguish the fire. The elimination of violent clouds of air and flame resulting from a burning oil tank, is an important factor in preventing ignition of neighboring tanks and the general spread of fire.

Preventing Boilovers

The problem of preventing floodlike boilovers from escaping tank compounds has been studied from many angles, principally because of the uncertainty of the action and travel of boilovers or what might be termed "floods of fire." It was with these difficulties in mind and the necessity of remedying the cause of boilovers that the writer investigated and developed through actual tests the gradual evaporation and dissipation of water and b.s. in burning crude oil tanks by continuous agitation with air.

In other words, if b.s. and water in the bottom of the tank are mixed with the oil and the whole mass kept rolling, it will maintain an equal temperature throughout, and as the mixture comes in contact with the hot metal above the surface of the burning oil, the water will be dissipated as steam. The quantity of water in a tank is immaterial. If there is a great deal of water, it will merely be essential to continue blowing air into the tank until the oil is pumped off or burned out entirely.

The usual procedure of putting out a tank fire by applying foam without delay, should be followed. If this is not successful, a boilover is inevitable unless air is admitted to the tank. It is also safe and practical to turn air into a burning tank immediately, then follow with foam application. The turbulence of the burning oil surface caused by the air should, if anything, be a help in keeping the foam in suspension on the surface of the oil. If, however, the tank has been burning for several hours, air should not be turned into the tank because the rapid contact of large quantities of very hot oil with water would in all probability generate sufficient steam to cause an immediate boilover.

The sequence of heat propagation, sometimes called "heat wave," when air is forced in the bottom of the tank so as to agitate the liquids, is that, due to this mixing, these liquids are heated uniformly, the water being gradually converted into steam as the burning continues, and there is no sudden change from water to steam. Furthermore, the mixture of oil, water and b.s. burns much less readily than the oil alone, so that the flames are smaller, producing much less heat. In some cases of less inflammable materials, such as heavy Mexican crude with a small percentage of gasoline, where there is a proportionally large amount of water present, the agitation may extinguish the fire without use of other materials.

When air is not applied, the temperature of the water increases until its vapor pressure becomes greater than the pressure due to the liquid level, when some of the water flashes into steam, causing a very rapid agitation and rise of the liquid in the tank until it overflows the top of the tank, which is termed a "boilover." This dreaded performance of a tank is followed at intervals by other boilovers until the fluid is practically all removed.

The air may be introduced into the bottom of the tank in any suitable manner. One method is by use of a spider or cross of perforated pipe, with the perforations being in the bottom of the pipe as shown in Figure 2. The size of the pipe and the number and size of the perforations depend on the size of the tank, so that a fair uniformity of agitation may be obtained.

Efficient Procedure

While the method in theory and practice produces definite results as shown in the reports, it is important and advisable that superintendents and others in charge of oil tank fires, make a thorough study of the principle involved, so that they will be in a position to order and advise the most efficient procedure in an emergency.

The method of application and equipment required will obviously depend on the size and location of tanks, as well as the risks involved and expenditures warranted. The installation of an adequate air supply is usually a simple matter in refineries proper where compressed air in quantity is usually available and the distances between pumps, compressor equipment, and tankage are comparatively short. A practical and very efficient method of fitting tanks for the introduction of air is shown in Figure 2. With this method, the circulation and diffusion of water is comparatively uniform, which in turn assures its gradual elimination as the heat wave tends to rise.

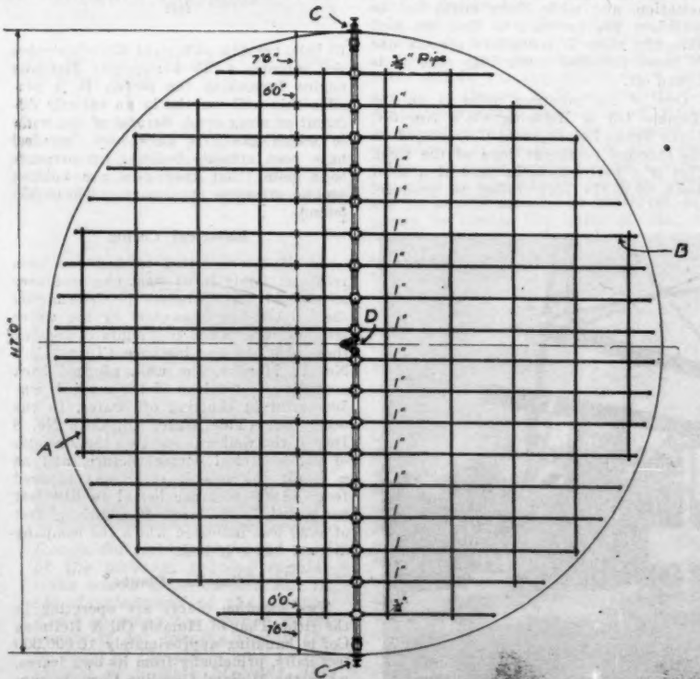


Fig. 2. Layout of air spiders for a 117-foot diameter tank. (A) 2-inch or 3-inch scrap pipe for air line supports, spaced about 12 feet on centers. (B) Perforated laterals, drill one-eighth inch holes 12-inch on centers on under side of pipes. (C) 4-inch supply mains. (D) Expansion joints

Where crude oil is stored on tank farms not too great a distance from compressed air pumping machinery, air can be transmitted to such tankage through the regular oil supply lines. Air delivered in this manner to storage tanks will be effective provided the tankage is fitted with swing pipes and elbows facing downward. If tanks are not so fitted, the introduction of air through the oil line terminating at the shell of the tank, would be of material help but not as efficient. We are not in a position to state definitely that introduction of air in this manner would eliminate the possibility of boilover, but we are certain that a boilover, if it did occur, would be considerably delayed and greatly minimized.

Where isolated tank farms are involved and where no compressed air is available, the mere opening to the atmosphere of the suction side of regular oil transfer pumps and keeping them in operation, will serve to dampen an oil tank fire, which in turn will retard a boilover. While it is general knowledge that several hours elapse before a boilover occurs, it often happens that even this considerable period of time is not sufficient to undertake and complete such earthworks as might be deemed advisable to prevent the spread of fire from boilovers, or sufficient time to allow for diminishing the quantity of stock about to be consumed to any appreciable extent. The operation of pumps as above will extend the time for carrying out fire spread preventive measures.

In the absence of similar experiments and uses of this method by other companies and corporations in the industry, we regret that the data we have available is limited. The reason for this is simply that oil tank fires are comparatively infrequent and when they do occur, they invariably happen in localities where this method of boilover prevention is unknown and not provided for. We should be glad to have any additional data and information regarding results where this method has been used to the fullest extent possible or in part.

Boilover Experiment

Two 10'x10' tanks were set up in separate pits. One tank was provided with a means of agitation by laying perforated pipe on the bottom, perforations pointing down. The pipe was made in the form of a cross, each arm extending 4 feet from the center.

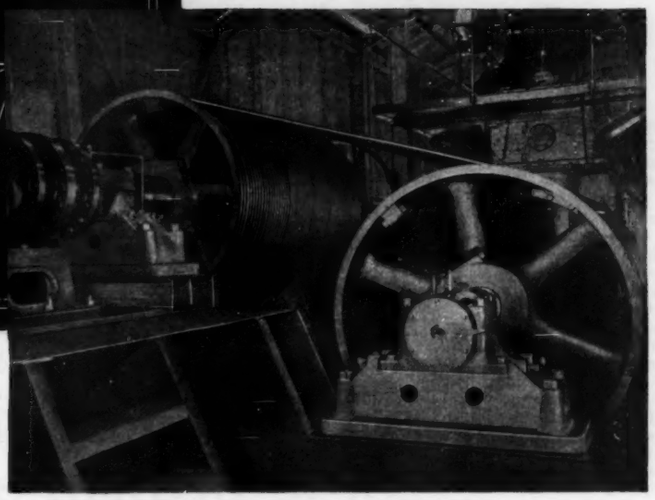
Six inches of water (289 gallons), 3

(Continued on Page 48)

WORLD'S LARGEST MULTI-V-DRIVE

G.T.M.-SPECIFIED
GOODYEAR EMERALD CORD V BELT
INSTALLED BY WORTHINGTON PUMP AND MACHINERY CORPORATION HARRISON, NEW JERSEY
On 1000 H.P. Diesel-driven dredge pump for McWilliams Dredging Company
Number of belts: 54
ELASTIC ENVELOPE TAKES THE WEAR
HIGH TENSION SECTION
NEUTRAL SECTION
HIGH COMPRESSION SECTION

54 Goodyear Emerald Cord V Belts speed giant dredge pump



Matched construction insures close to 100% power-efficiency

THE practicability of using high-efficiency multiple V drives on heavy duty machinery is demonstrated by the 54-belt giant pictured here, said to be the largest in the world.

It is part of a 1000 H. P. Diesel-driven pump installation, recently made by the Worthington Pump and Machinery Corporation on a huge dredge operated by the McWilliams Dredging Company of Chicago.

Because efficiency, dependability and long life command a special premium in dredge service, the Worthington engineers took no chances. They specified 54 Goodyear Emerald Cord V Belts, 1½" wide, 420" long, as recommended by the G. T. M. — Goodyear Technical Man — for these reasons:

Emerald Cord V Belts are precision built in matched sets, uniform in length and accurate in cross-section — *insuring practically slipless grip!*

The load is carried entirely by a core of high-tensile low-stretch cords, deeply embedded in high quality rubber that neutralizes the forces of tension and compression in flexing over pulleys — *insuring greater strength, long flexing life and high fatigue resistance.*

As a result of this greater flexibility and grip, Emerald Cord V Belts transmit power with an efficiency close to 100%, and permit a uniformity of operation impossible with other belts.

SPECIFIED BY GTM

On many drives where even, maximum power is requisite—on textile machinery; ball, rod and tube mills; clay, heavy saw mill and paper working machinery; crushers, pumps and compressors, the G. T. M. recommends Emerald Cord V Belts and individually specifies them to your equipment.

Why not talk it over with this practical expert. Perhaps he could save you money, too. To get in touch with him, address Goodyear, Akron, Ohio, or Los Angeles, California—or the nearest Goodyear Mechanical Rubber Goods Distributor.

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GOODYEAR

Quality and Grade of Mid-Continent Asphalt Depend Upon Manufacture

By H. B. BATCHELOR

Petroleum asphalts can be made from asphaltic, semiasphaltic and nonasphaltic petroleum. The petroleum asphalts are usually classified into two groups, residual and blown.

Residual asphalt is a term applied to residues obtained from the distillation of semiasphaltic crudes, asphaltic crudes and pressure tars. Those that are familiar with the manufacture of such asphalt refer to the product as steam reduced or straight reduced asphalt.

Blown asphalt is a term applied to petroleum asphalt that has been treated with air during its manufacture.

The principal asphalt producing area of the Mid-Continent section is in southern Oklahoma. In this area are found the native asphalts which are known as rock asphalts. They include: asphalt taken directly from the wells and sold as it is produced; heavy asphaltic crudes that do not require the topping off of any light products before manufacturing them into asphalt and crudes that require the removal of only 15 per cent of light products before manufacture. Also found in this region are the more mixed base crudes that contain from 15 to 20 per cent of asphalt and have to be topped at atmospheric pressure, and then the higher boiling point fractions distilled off under a vacuum of 1½ to 2½ inches of mercury absolute, to obtain asphalt of the desired penetration.

SPECIFICATIONS FOR THE PRINCIPAL STEAM REDUCED ASPHALTS

Grade—	40-50 penetration	60-70 penetration	85-100 penetration
Sp. gr. (77° F. at 77° F.)	1.010+	1.000+	0.990+
Flash, deg. F. (C.O.C.)	450+	450+	450+
Penetration at 77° F.	40 to 50	60 to 70	85 to 1,000
Penetration at 32° F.	10+	10+	10+
Ductility at 77° F.	100+	100+	100+
Softening point, deg. F.	120 to 140	115 to 130	110 to 120
Per cent evaporation loss (5 hrs. at 325° F.)	1—	1—	1—
Per cent soluble in CCl_4	99.5	99.5	99.5
Per cent paraffin	3—	3—	3—
Per cent sulphur	1—	1—	1—

SPECIFICATIONS FOR THE PRINCIPAL BLOWN ASPHALTS

Grade—	90 penetration	Low roofing	Regular roofing	Joint filler
Sp. gr. (77° F. at 77° F.)	0.99+	1.00+	1.00+	...
Flash, deg. F. (C.O.C.)	450+	450+	450+	450+
Penetration at 77° F.	85–100	25–35	20–30	30–50
Penetration at 32° F.	30+	10+	10+	18+
Penetration at 115° F.	...	80—	70—	80—
Softening point, deg. F.	112–140	165–180	180–190	160+
Ductility at 77° F.	60+	3+	3+	3½+
Ductility at 32° F.	...	...	...	1+
Per cent evaporation loss (5 hrs. at 325° F.)	1—	1—	1—	1—
Per cent soluble in CCl_4	99.5	99.5	99.5	99.5
Per cent paraffin	2—	2—	2—	2—
Per cent sulphur	2—	2—	2—	2—

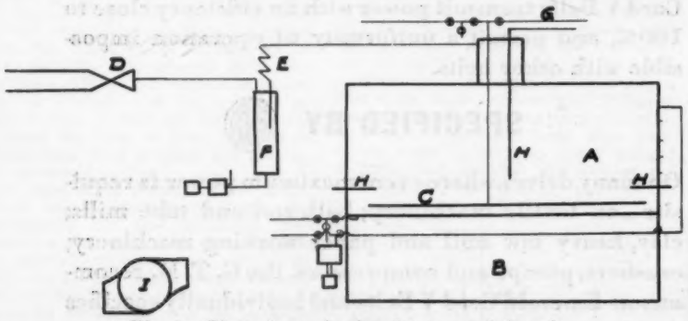

Fig. 1. Flow sheet of a batch type asphalt unit

Steam Reduced Asphalt

The manufacture of asphalt by steam distillation is the same process used in the distillation of crude oils, excepting the heavy residues are subjected to further distillation. The distillation is continued until enough of the lower boiling point fractions are taken off to leave a residue of the desired penetration. The yield of the steam reduced asphalt will depend upon the per cent of asphalt in the charging stock. However, the mixed base stock with a quantity of the heavy or higher boiling point oily fractions, when subjected to such temperatures will polymerise or condense to form asphaltlike substances which are undesirable. Such products are easily detected in the asphalt, for on slow cooling a dull, greasy looking surface is formed, where a pure asphalt product will give a black, shiny surface.

Different charging stocks will require different temperatures to obtain the same results, but in every case the temperature should never reach the point that would cause cracking of the product.

The manufacture of steam reduced asphalt may be carried out by the batch or continuous process.

In Figure 2 is shown the necessary equipment for an inexpensive batch process for manufacturing steam reduced or blown asphalt from asphaltic stock. (A) 500-bbl. shell still braced to stand vacuum. (B) Furnace for heating and maintaining temperatures up to 700° F. (C) Open coil with holes facing the bottom of the still. (D) Steam jet ejector for producing vacuum (for air blowing or steam reducing the stock). (E) Condenser. (F) Settling drums for catching all overhead products. (G) Air connection to coils for air blowing. (H) Thermocouples. (I) Blower.

The above process has its advantages. It is cheaply installed and is flexible. The charge can be treated with steam or air at any desired time during the process. Different per cents of the various types of charging stocks may be used for manufacturing the different grades of asphalt that are desired. Only one operator for the unit is required and after one becomes familiar with the process it will not require any laboratory attention until two or three hours before the batch is on the desired specification.

The mixed base stock requires more extensive processing than the stock just described. One method is by means of the one-stage vacuum unit as shown in Plate 1. The charging stock is a 16 to 22-gravity residuum from an atmospheric tower. It passes through a tube still and enters the vacuum tower at a temperature from 800° F. to 875° F. Steam enters with the charging stock into the tubes of the tube still to insure turbulent flow at all times. Superheated steam enters the bottom of the vacuum tower through an open coil. One or two cuts of gas oil are taken from the tower and the residuum is reduced to the desired penetration.

To change the penetration of the asphalt, the temperature may be raised or lowered, the amount of steam in the tower may be increased or decreased, or the charge may be increased or decreased. The products that are produced by the single stage unit range from flux oil to as low as 20 penetration asphalt.

The two-stage unit is a much more efficient process, especially for cracked residuum and for producing low penetration asphalt. The two-stage unit usually has one large tube still, from which the stock first flashes into an atmospheric tower where the residuum in the bottom of the tower is reduced by steam. This partially reduced residuum passes through the same furnaces by a separate set of roof tubes, which raises it to a higher temperature and flashes into a second tower. Here the residuum is subjected to superheated steam and vacuum. Heavy oily fractions are taken from this tower.

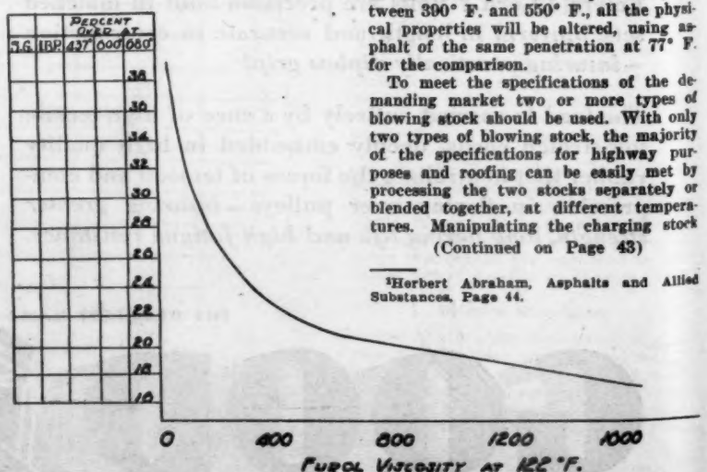

Fig. 2. Chart used in testing and processing asphalt

Plate 1. Photograph of one-stage vacuum unit installation

while the residuum at the bottom of the tower has been processed into the desired penetration asphalt.

Below are listed the specifications for the most common grades of steam reduced asphalt.

In testing samples of asphalt the utmost care should be taken to carry out all tests as directed, so that the results will be reproduced when checked by other laboratories. All testing of samples of asphalt and cut back residues should be completed in the required length of time, for on standing five or six hours asphalt shows a temporary set which gives an incorrect penetration. If a sample must be tested after standing for a period of time it should be heated and stirred thoroughly before the testing.

Blown Asphalts

Blown asphalts are often called oxidized asphalts, but in this article they will be referred to as blown asphalts.

When the asphaltic petroleum is blown with air at a high temperature the oxygen does not unite with the asphalt molecule but unites with the hydrogen of the molecule to form water. Herbert Abraham[1] represents the chemical reaction that takes place by the following equation: $C_xH_y+O=C_xH_{y-2}+H_2O$.

The chemical reaction is exothermic, and care should be taken to keep the temperature within a narrow range, that is, within 15° or 20°, for temperature greatly affects most of the physical properties of asphalt.

By processing certain blowing stocks at different specified temperatures, between 390° F. and 550° F., all the physical properties will be altered, using asphalt of the same penetration at 77° F. for the comparison.

To meet the specifications of the demanding market two or more types of blowing stock should be used. With only two types of blowing stock, the majority of the specifications for highway purposes and roofing can be easily met by processing the two stocks separately or blended together, at different temperatures. Manipulating the charging stock

(Continued on Page 43)

[1]Herbert Abraham, Asphalts and Allied Substances, Page 44.

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NEWS FROM FOREIGN LANDS

VENEZUELA

Venezuela has shown a steady increase in crude oil production based on figures covering the first seven months of this year. For the seven months, crude production totaled 77,278,000 bbls., or 364,500 bbls. daily. This compares with a production of 66,031,000 bbls. for the same period in 1933 or a daily average of 311,500 bbls. This gain of 17 per cent for the first seven months reflects greater drilling activity. Approximately 115 wells were drilled the first seven months of this year, a gain of almost 100 per cent over the same period last year. While a number of important wildcat tests are drilling the substantial increase in production this year has been obtained without the bringing in of any new fields.

As shown in the accompanying table all of the gain in production is accounted for by the increased activity in three fields. The remaining six fields showed decreases ranging from 15 to 50 per cent. In the Lagunillas area there has been considerable drilling and the larger operators in that field have been able to increase their output this year. The same situation applies to the Mene Grande Field where operators have proven territory which has not been drilled up.

The most spectacular of the newer fields is the Quirequire Field in eastern Venezuela where the production the first seven months of this year showed an increase of more than 100 per cent over the same period in 1933. This field which is controlled by the Standard Oil Co. of Venezuela (Creole) is rapidly becoming a major source of supply for crude oil. Several wells have been completed in the field this year and facilities for transporting the oil to the seaboard have been improved. The success of this field accounts for the drilling of several wildcat tests in eastern Venezuela which may result in the discovery of greater potential supplies before the close of the year.

Standard Expands

Among the seven crude oil producers in Venezuela, the subsidiaries of the Standard Oil Co. of Venezuela has shown the largest gain in production. The Lago Petroleum Corp. with a gain of 4,187,000 bbls. and Creole Petroleum Corp. with an increase of 3,151,000 bbls. account for 65 per cent of the total gain the first seven months of this year. Due to this increase the Standard units have passed the subsidiaries and affiliates of the Royal Dutch-Shell in Venezuela production and are now the largest producers in Venezuela with 46 per cent of the total for the entire country. The Royal Dutch-Shell units have 42 per cent of the total in effect reversing the relative positions of the two companies from last year.

The Lago corporation is one of the older operators and has been able to increase its production in proven fields. The gain in Creole production is largely accounted for by the increased output of its subsidiary, the Standard of Venezuela, in the Quirequire Field. Its proven holdings in this area have only been touched and if the crude oil is needed the production can be further increased over the balance of the year.

The Venezuela Oil Concessions, Inc., the most important of the Royal Dutch-Shell units in Venezuela, increased its production 7 per cent with a gain of approximately 25 per cent in the case of the Caribbean Petroleum Co. The production of the Colon Development Co., Inc., the third of the Shell units, showed a loss the first seven months.

The Venezuela Gulf Oil Co., subsidiary of the Gulf Oil Corp., which ranks third in Venezuela operations, increased its production the first seven months approximately 30 per cent. This company in addition to its proven properties is carrying on important exploration work in eastern Venezuela. The production of the British Controlled Oilfields, Ltd. decreased almost 50 per cent the first seven months of this year.

VENEZUELA PRODUCTION BY FIELDS FIRST SEVEN MONTHS (BARRELS)

Field—	1934	1933	Increase 1934
Lagunillas	39,255,000	31,144,000	8,111,000
La Rosa-Ambrosio	13,886,000	14,690,000	*804,000
Mene Grande	8,671,000	6,815,000	1,856,000
Quirequire	7,447,000	5,414,000	4,033,000
Tarra	3,786,000	4,535,000	*749,000
Cumerebo	2,379,000	2,893,000	*514,000
Concepcion	1,103,000	1,237,000	*134,000
El Mene	603,000	1,128,000	*525,000
La Paz	148,000	175,000	*27,000
Total	77,278,000	66,031,000	11,247,000
Increase, 1934	11,247,000		17%

*Decrease.

Company—	1934	1933	Increase 1934
Lago Pet. Corp. (Standard of New Jersey)	24,127,000	19,940,000	4,187,000
Venezuela Oil Concessions, Inc. (Royal Dutch-Shell)	20,097,000	18,821,000	1,276,000
Creole Pet. Corp. (Standard of New Jersey)	11,544,000	8,393,000	3,151,000
Caribbean Pet. Co. (Royal Dutch-Shell)	8,671,000	6,815,000	1,856,000
Venezuela Gulf Oil Co. (Gulf Oil Corp.)	8,449,000	6,399,000	2,050,000
Colon Dev. Co., Ltd. (Royal Dutch-Shell)	3,786,000	4,536,000	*749,000
British Controlled Oilfields, Ltd.	604,000	1,128,000	*524,000
Total	77,278,000	66,031,000	11,247,000

*Decrease.

MOROCCO

A fund of 20,000,000 francs has been made available in France to aid in financing oil operations in Morocco. Part of this fund was contributel by the government through the National des Combustibles Liquids and the remainder by the Compagnie Francaise des Petroles and the Moroccan offices of mining and participations.

It is planned to subscribe to the capital stock of the Societe Cherifienne des Petroles, which has conducted operations in Morocco and has made important discoveries. Aid, it is said, will be given to other companies who carry on actual exploratory operations in the province.

JAPAN

Objections are being made by consumers in Japan to the recent advances in gasoline prices to 40 sen per gallon. This was an advance of approximately 20 per cent and followed a price war condition brought about by marketing methods of a concern representing Soviet oil interests.

The Soviet representative over the past two years has been able to secure a substantial part of the gasoline business in Japan formerly handled under a cartel arrangement in which six foreign and domestic companies participated. An effort was made to include the Soviet company in a new cartel with all distributors to sell at the same price. The company insisted on selling at lower prices and a new arrangement was recently completed and it is now permitted to sell 1 sen under the regular price.

Quotas have been established for the third quarter of this year covering all companies. The quota of the Soviet company is understood to be 115,000 cases. It is said that this gasoline is of inferior quality when compared with the regular products sold by other companies.

ARGENTINA

Considerable interest is being manifested in a new field which has been discovered in the Province of Mendoza near western border of Argentina. The well is located at Tupungato which is about 30 miles southwest of Mendoza. The well was drilled by the Yacimientos Petroliferos Fiscales, the government-owned company which is carrying on exploration work in several areas with the expectation of discovering other new fields.

No official report has been issued regarding the new well. It is understood that it is producing from a depth of approximately 200 feet with an initial flow from a sand formation of 150 bbls. daily. The crude is paraffin base with a high cold test. The company expects to drill other tests immediately to determine the possibilities of the new sand. Deeper tests also will be drilled.

Oil test in Spain

MEXICO

The Mexican Eagle Oil Co. (Royal Dutch-Shell) has won its initial fight in a contest involving ownership of several wells in the Amatian Zone, Vera Cruz, Mexico. The company has been granted a temporary injunction by the National Supreme Court restraining a court in the State of Vera Cruz from putting into effect an embargo it ordered against subsoil rights to wells Nos. 1, 2 and 3 of Lot 176 in the Amatian Zone where the Federal government took possession of several wells based on the contention that the operators of the wells did not have clear title.

The basis of the Mexican Eagle contention is that the company secured rights to the production of the wells through a contract made with the Capuchinas Petroleum Co.

The Mexican government has announced the following taxes and production taxes for August (calculated in silver at exchange of 3.60):

VALUES

	Silver pesos per cubic meter	U. S. Dollars
Fuel oil	30.57	$1.35 per bbl.
Gasoline	89.97	.0946 per gal.
Kerosene	52.12	.0548 per gal.

PRODUCTION TAXES

	Tax per cubic meter	Tax in U.S. currency
Crude (sp. gr. 0.93= Be. 20.38)	3.702	$0.16349 bbl.
Crude (sp. gr. 0.96= Be. 15.68 or heavier	2.265	0.10003 bbl.
Fuel oil (sp. gr. 0.95= Be. 17.21)	3.485	0.15390 bbl.
Gasoline (crude)	3.599	0.00378 gal.
Gasoline (refined)	1.799	0.00189 gal.
Kerosene (crude)	3.127	0.00329 gal.
Kerosene (refined)	1.564	0.00164 gal.

The production tax on fuel oil will vary approximately $0.01262 per barrel for each degree of specific gravity above (deduct) or below (add) 0.95 specific gravity.

The production tax on light crude will vary approximately $0.01341 per barrel for each degree of specific gravity above (deduct) or below (add) 0.93 specific gravity.

EXPORT TAXES

NOTE—As export taxes are payable in silver at par, to make calculations in U. S. currency, take figures given below, multiply them by 2 and divide by rate of exchange at time of payment.

	U. S. currency ($1 for 2 pesos)
Crude (sp. gr. 0.93= Be. 20.38)	$0.07949 per bbl.
Crude (sp. gr. 0.96= Be. 15.68) or heavier	0.04928 per bbl.
Fuel oil (sp. gr. 0.95= Be. 17.21)	0.05962 per bbl.
Gasoline (crude)	0.00472 per gal.
Gasoline (refined)	0.00189 per gal.
Kerosene (crude)	0.00151 per gal.
Kerosene (refined)	0.00057 per gal.

The crude oil production in Mexico for July totaled 3,305,055 bbls. according to the petroleum department of the ministry of national economy. This compares with a production of 2,950,803 bbls. in July of last year and 2,918,793 bbls. in June of this year. Of the total production 1,429,996 bbls. was in the Tampico district of which 765,851 bbls. was light crude oil.

U. S. S. R.

Two wells of the gusher class are reported to have been completed over the past month in the U.S.S.R. Both wells are located in the Baku area. The first well is known as No. 145 in the Karachuchur district which was completed at an approximate depth of 4,000 feet with an initial flow of 4,000 bbls. daily.

The second well was No. 27 in the Molotoff Field of the Apseron Peninsula. This well got out of control for a time and flowed 35,000 bbls. daily according to field reports.

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The First Step

The Texas Commission's order on tenders, supposed to be a "sure-shot" remedy, has already run into a legal entanglement. The idea that, having failed to curb illegal crude production at the well, it might be easier to curb the products of illegal crude in shipment has not worked out.

The Petroleum Administrative Board and the Planning and Co-ordination Committee have been wrestling with the products situation, in refining and marketing, for over a year. The proposed remedies have ranged from price fixing to buying surplus gasoline and what is there to show for it?

Possibly the answer is suggested in a section of the address delivered at the Drake Day Celebration by President Axtell J. Byles of the American Petroleum Institute.

"An increasing number of people," he said, "are realizing that it is impossible for a committee, or board, or authority to regulate, or mandate, or regiment the complex and endless operations of so vast an undertaking. With multitudinous ownership and competing interests, the task is insuperable."

If not, surely some sort of workable solution of the refining and marketing difficulties would have appeared before now. Instead, we have been hopping from one proposal to another and making not the slightest progress. Nor does there seem to be any in prospect so long as the fundamental trouble remains—too much crude.

And on that point President Byles suggests that "beyond the supply of raw material, the hand of government should be removed, that if too much crude oil is not produced too much gasoline and other products cannot be, and, as a result of such balance, price will take care of itself."

"We cannot," he added, "take the second or fifth or tenth step until we have taken the first. We have not yet succeeded in taking the first."

From the outset the code attempted to do too much. It was welcomed as an opportunity to correct or eradicate marketing abuses which it has utterly failed to do. It would have been better if the time and effort spent in trying to accomplish what Mr. Byles now pronounces insuperable had been concentrated upon the first step, the balancing of crude supply and demand.

On this point of restricting production of crude to demand there is much more general agreement within the industry than on any one plan for solving the refining and marketing problems. Dollar crude on the hope of restriction has been a convincing demonstration.

During the coming month the Congressional Committee investigating the oil situation with a view to framing a bill for federal regulation will begin its hearings. What plan has the industry to put before Congress?

So far as the refining and marketing situation is concerned, taking those endless squabbles before Congress will simply confuse the issue.

If we must have federal regulation would it not be better for the industry and the Petroleum Administration to consider the first step—balancing crude supply and demand—and bring it to a conclusive test?

If the crude situation cannot be regulated what hope can there be for regulation of the multitudinous phases of the rest of the industry?

On the other hand, if overproduction of crude can be curtailed, if there is no surplus crude seeking a market at any price to be made into cheap surplus gasoline, there will be no cheap crude to tempt the refiner to overrun and no cheap gasoline to break the market.

Regulation of the oil industry has been a tough job, largely because there were too many objectives—the attack was scattered on too wide a front instead of being centered in a single wedge. Plan has succeeded plan without any appreciable result. Now Congress is trying to draft a plan which may be even less acceptable.

Regulation of crude overproduction seems impossible without some form of federal assistance. But regulation of refining and marketing without a regimentation that would mean government control seems, from what has been attempted, to be impractical.

With the crude supply stabilized, the cause for most of the evils in the refining and marketing divisions would be removed. The industry would then be in shape to deal with the tax evaders, chiselers and other racketeers who have been thriving on the conditions caused by overproduction.

The Closing Season

The main gasoline consuming season now drawing to a close has been less satisfactory than it ought to have been but has been an improvement over that of 1933, both in demand and returns.

The continuing availability of crude below the market prevented the refined market from getting in line with the crude price despite all efforts. Reductions in crude allowables in the closing months failed to offset excessive production earlier and it is now found necessary to reduce the crude allowable for September 107,000 barrels daily "to reduce excessive gasoline inventories which are still considerably above a sound economic level."

Part of this reduction is, of course, due to the normal seasonal decline in gasoline demand in September, and part to the effects of the drought on consumption in the agricultural districts affected, but much is due to having overrun the calculable demand.

The fact that prices were better than a year ago is minimized by the fact that dollar crude and the additional recovery costs required better returns than were obtained.

The trend of the market in the coming months will depend upon the common sense used by refiners in scheduling their operations.

Whatever the course of the crude output refiners should keep steadily in mind that only just so much gasoline can be marketed and that when they disregard this stubborn fact in greed for gallonage they break their own necks.

The position in which they find themselves at the close of the season, in contrast with what they might be in if their operations had been more conservative, should be a warning during the coming months.

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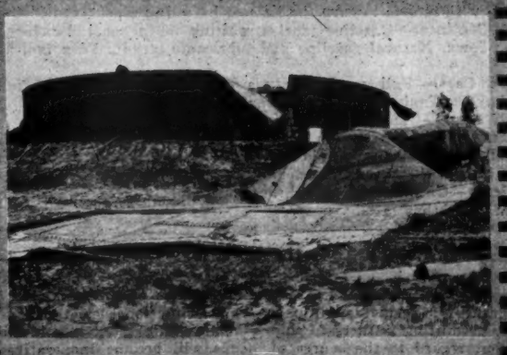
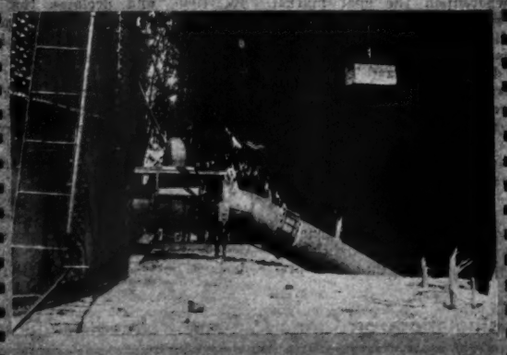
BRADFORD, PA.

In Canada: Dresser Mfg. Company, Ltd., 32 Front Street, W., Toronto, Ontario.



RIVETED TANK WRECKED BY EARTHQUAKE—Rivet heads were sheared from the sides of this water tank, and some of the plates were blown 200 feet from their original position.

★



FLEXIBLE JOINT "CAME SMILING THROUGH"—This 24-inch Dresser Coupled outlet pipe from above tank was miraculously spared from damage, furnishing dramatic and conclusive proof of Dresser flexibility.

★

RIGID JOINT FAILED TO HOLD PIPE—typical failure of riser connection in a sprinkler system. In other cases threads were stripped, flanges were cracked or the pipe was broken. Failures in sprinkler systems are now prevented by special Dresser Couplings for joining risers flexibly.

Sluggish Gasoline Market in Group 3 Area, With Exasperating Conditions Getting on Nerves

By T. F. SMILEY

A sluggish and somewhat ill-tempered gasoline market prevailed in the Oklahoma (Group 3) area this week. Irritating conditions, long endured, had begun to get on the nerves.

Exasperation was intensified Tuesday of this week when news was received that the hearing of a group of East Texas refiners for a permanent injunction restraining the Texas Railroad Commission from enforcing its order requiring approved tenders for shipment of petroleum products had been postponed to September 4 by Judge Charles A. Wheeler in the district court of Travis County. This meant further prolongation of uncertainties that were disorganizing the gasoline market.

Same Price Spread Prevails

Prices witnessed no material deviation from the range that had ruled for weeks. There continued the spread of about a half-cent between the prices established by contract sales made under the Washington-sponsored purchasing plan and prices paid in the spot market. Brokers and jobbers reported they could get "all the gasoline they wanted" in East Texas at 3¼ cents resale. They were referring to the low-octane U. S. Motor material. It was said to be virtually impossible to get that price shaded, however, and to that extent it could be said that the market had stiffened, though buying was listless.

When the railroads announced last week that in conformity with a Texas Railroad Commission order they would not accept shipments of gasoline unless it was accompanied by a tender approved by the commission showing the material had been made from legally produced crude, East Texas refiners refused to accept any spot orders, doubting their ability to deliver the gasoline under the conditions imposed. The Travis County District Court granted a temporary injunction, however, permitting refiners to ship gasoline without regard to the source of the crude, whereupon the spot market trading was reopened.

It was believed by many the fate of the Government's gasoline purchasing plan, designed to keep East Texas free from excessive stocks, might be determined by developments of the next week or two. Largely in connection with the operation of this purchasing plan and with other efforts looking to stabilization in East Texas, two attitudes have developed among refiners and marketers in the Group 3 territory with reference to the whole petroleum code and its agencies.

One group holds the code lightly, as an impractical experiment that was predestined to failure. It may be discreet, this group concedes, to make a show of "going along"; but it points out that the code will become inoperative after June 16, 1935, and declares the belief that Congress will refuse to extend it in any form after that date. So while granting the wisdom of observing (or seeming to observe) code regulations sufficiently in the intervening months to keep out of trouble, this protesting group seems to feel sure there is no need of worrying over the common welfare or sacrificing any profits that may be realized without landing in jail.

The other group views the petroleum code as an earnest experiment growing out of desperate conditions and calling for honest, wholehearted co-operation. It declares selfish interests have so obstructed enforcement that the code really never has had a test and that until it has had a fair test anybody who calls it impractical is guessing. This group asserts that the administration in Washington has no faintest notion of abandoning its efforts toward stabilization and fair practices; that the code, modified perhaps but retaining essential features, will be extended after the date fixed for its expiration; that every refiner and marketer should realize the surest and swiftest way to a return of prosperous conditions lies not in obstructive tactics, but in compliance with regulations.

Elimination of Hot Oil Imperative

Observers on the sidelines, noting these two contrasting attitudes, express the opinion that so far as the East Texas problem goes, no device looking to stabilization through removal of distress gasoline from that area can be more than temporarily successful unless it puts a stop, thoroughgoing and positive, to the production and processing of illegal crude. They insist that here lies the crux of the situation. Plentiful supplies of gasoline available at 3¼ cents afford convincing evidence, they say, that plenty of hot oil is available, too. They predict that even the most loyal supporter of the administration's program will eventually throw up his hands in despair if he sees other men persistently violating government regulations with impunity.

Thus, market students point out, much significance may attach to the energy which both the petroleum administration and the Texas Railroad Commission display in connection with traps for catching producers and refiners of hot oil. With hot oil eliminated, they say, the gasoline purchasing plan would have at

(Continued on Page 28)

Refined Oil Market Barometer

Refined markets were almost featureless. A slightly stronger tone in motor fuel was noticeable in some eastern points. Few price changes were recorded throughout the whole list of products and these were mainly seasonal. The principal product, gasoline, was attended by so many uncertainties as to make its direction extremely conjectural. Its feature was regarded as inseparably bound up with efforts to curb the flow of hot oil in East Texas.

Mid-Continent—Gasoline market waiting for a court decision to send it up or down. Natural gasoline and lubricants steady. Wax indicating revival.

East Coast—Fall market trends obscure, with resultant hesitation among buyers. Tank car gasoline steadier for the moment.

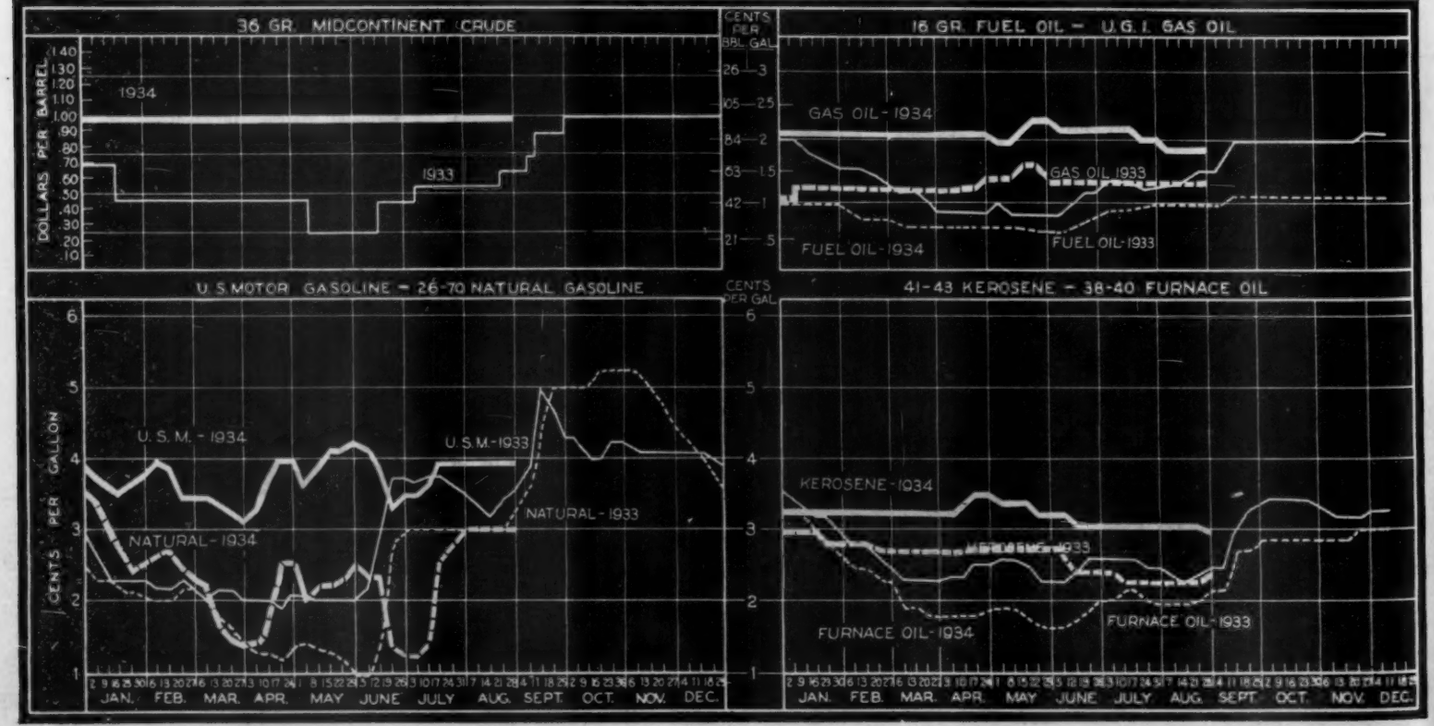
Gulf Coast—Gasoline easy and uncertain. Lubricants steady.

Pennsylvania—Markets in all products holding, with no price changes.

California—Embargo on hot gasoline from Texas prevented expected price declines. Other products unchanged.

Chicago—Gasoline still mixed, but tone slightly better in spots. Heating oils firm. Naphthas steady.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



Eastern Refined Market Uncertain as the Higher Costs Offset Gains From Better Consumption

By C. O. WILLSON
New York Bureau, The Oil and Gas Journal

NEW YORK, Aug. 27.—The last week of the summer is being brought to a close with enough uncertainty in eastern refinery markets as to the probable market trends for the fall months to cause buyers to be hesitant in making purchases with a few sellers willing to give price concessions especially on products for immediate delivery. So far as general quotations are concerned as posted by the major refiners a check today failed to reveal any important changes from last week. Following the gasoline price reductions of last week the tank car market appeared steadier but there are many connected with the trade—on both the buying and selling sides—who are expecting additional reductions within the next few days. It is conceded that further declines in the tank car quotations will no doubt bring general downward adjustments in tank wagon and service station schedules. Others are hoping that some action emanating from Washington will bring about better basic conditions in the crude oil and refining end of the industry and with the aid of a buying program will prevent these predicted declines.

In retrospect, few complaints from refiners are heard in regard to the demand for gasoline for the summer season now being brought to a close. Most of the major refiners in this territory have had increases in demand ranging from 2 or 3 per cent to as high as 15 per cent over the summer of 1933. The greatest increases no doubt are due to special sales efforts or expansion in number of marketing facilities for the available data indicate a gain in consumption in eastern states for the past 90 days over the same period in 1933 of around 5 per cent. Prices received this year were higher both in tank car and service station sales. The same relative situation prevailed in regard to motor oils.

Low Prices and Higher Costs

This comparison cannot be taken as indicating a highly profitable summer. In the first place a comparison with the early months and the summer months of 1933 goes back to a depression period in which consumption of products was less than normal years and prices were far below the cost of production and distribution. As a second factor the higher labor and other operating costs brought about by the NRA code for the petroleum industry have to a large extent offset any gains through higher prices and greater consumption.

The market significance of this situation is that the demand for adequate profits is still on the side of higher prices rather than a continuance of present schedules at refineries and service stations. Present conditions point to lower rather than higher prices for the immediate future but in the long range view market students contend that every effort will be made to place markets at higher levels. The alternative is a reduction in costs of operation, a development which does not appear when the industry is faced with a program sponsored by the Government for reduced hours of employment and higher wage scales. These labor changes have been particularly burdensome to the distributing end of the oil business and have brought demand from independent units for more liberal margins to cover their costs.

Furnace Oil Season

Gasoline demand in this section in September declines more rapidly from the August peak than it does in the states of the Middle West, South and Southwest. The end of the vacation period is reflected immediately in the gasoline sales at many points in New England and the mountain regions of Pennsylvania and New York states. At the same time the demand for furnace oils and kerosene shows a seasonal increase. In this connection there has been an improvement in the tank car shipment of these products since the middle of the month and formal contracts and agreements have been closed for the movement of these products to the ultimate consumers. While many threats have been heard over the past few months that the slightly higher tank wagon prices asked for furnace oils and other overhead fuels would result in a decreased demand all the available information indicates greater rather than smaller consumption for the coming season.

While stocks of furnace oils and kerosene are substantially greater at refineries and bulk terminals than they were a year ago most of the trade feel that with the start of the consuming season it will soon be apparent there will be a demand for all the material available over the next nine months. Should the program of substantially reducing crude runs to stills during the fall and winter months which is to start in September, materialize, this would result in a reduction in both kerosene and furnace oil production and would also tend to strengthen the market on the supply side. This reduction in refinery operations over the next few months is planned in order to prevent an overproduction of gasoline.

Despite this situation there are a few in the trade who are expecting lower tank car prices for certain grades of furnace oils. Some of the sellers at this time are attempting to maintain a price of 5½ cents for No. 1 oil and 5 cents for the Nos. 2, 3 and 4 grades. This price schedule is not being supported by other sellers who are recognizing price differentials in Nos. 2, 3 and 4 grades. There is some confusion as to the specifications for the No. 4 grade and this in part accounts for the variation in price. Certain sellers have offered this grade as low as 4½ cents. It is this situation coupled with a demand from jobbers for wider margins between tank car and tank wagon sales which is the basis for belief that some price adjustments will materialize in the near future.

Residual Fuels Market

In the market for residual fuels a slightly different situation exists. Supplies appear more adequate than they did a year ago and the domestic demand is not so active. This market, with Bunker C quoted to the marine trade at $1.30 per barrel and $1.30 to $1.50 per barrel in tank cars to the domestic industrial users is being attacked from several angles. In the first place there has been some shifting back to coal by industrial consumers who claim that fuel oils have advanced beyond the competitive point with coal.

This is a situation which varies widely with different manufacturers, public utility operators and other large consumers depending on closeness to coal mines and refineries and the value placed on the cleanliness and other operating benefits obtained through the use of fuel oil. It cannot be denied, however, that regardless of the arguments made for oil, a number of large consumers have shifted back to coal. In this connection it is significant that a large refiner in this area who recently completed a large power plant has installed facilities to burn powdered coal as an alternate fuel for oil. The Federal import tax has also tended to confuse the market situation for the residual fuels along the seaboard extending from the Gulf to Maine. The tax of 21 cents per barrel adds that amount to the costs of refiners who import oil in the form of crude oil or fuel oil and this situation has shut off a large source of supply originally obtained from Venezuela and Mexican crudes. This development for a considerable period tended to limit supplies and increase prices.

Bunker Outside United States

However, in recent months there has been a growing tendency for large marine users to buy their fuel supplies at bunkering points outside the United States where the import tax is not a factor. They are in a position to give the buyers lower prices because of this condition. This situation is also a factor in any export business on fuel oil and the lighter gas oils and distillates. There is little uniformity in the position of individual companies due to the fact some have large crude oil and refinery production and marketing facilities outside the United States while others are compelled to view the situation based on domestic operations only. Few are willing to hazard a guess as to what will happen but many are confident that some adjustment will be necessary as more and more contracts come up for renewal involving a large consumption of fuels by marine and industrial users in this and other seaboard sections.

Prices

Representative prices in the New York Harbor area the first of the week were: 5¾ cents for under 60 octane material; 6 cents for 60-64.9 octane; 6¼ cents for 65 octane and above and 6½ cents for the branded ethylized regular grade of gasoline. Small spot sales of the low octane and middle octane material were reported from one-eighth to one-fourth cent under these quotations.

The market was not considered strong at these prices. Bargain material was available at the Gulf Coast which would mean prices under these posted quotations at water terminals along the At-

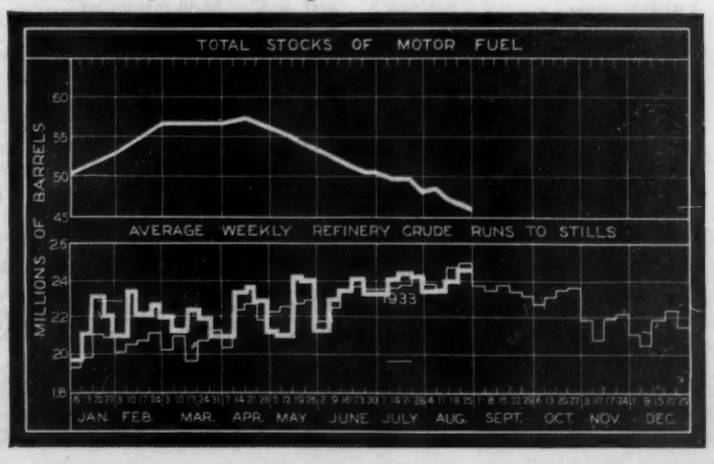
(Continued on Page 37)

American Petroleum Institute Weekly Refinery Statistics

Week Ending August 25, 1934

	Capacity reporting per cent	Daily crude runs (bbls.)	Finished motor fuel (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	500,000	14,117,000	12,832,000
Appalachian	93.3	109,000	1,613,000	1,358,000
Indiana, Illinois, Kentucky	94.6	346,000	7,155,000	4,605,000
Oklahoma, Kansas, Missouri	83.7	240,000	4,530,000	3,715,000
Inland Texas	47.6	98,000	1,184,000	1,609,000
Texas Gulf	97.5	526,000	3,404,000	9,405,000
Louisiana Gulf	96.4	120,000	1,221,000	2,456,000
North Louisiana and Arkansas	83.7	53,000	276,000	618,000
Rocky Mountain	66.7	45,000	718,000	613,000
California	96.9	437,000	11,902,000	76,063,000
Total United States	89.7	2,474,000	46,120,000	113,274,000

Note: Finished motor stocks shown in graph and in table include those at refineries, at bulk terminals and in pipe lines, but do not include 5,000,000 to 7,000,000 bbls. of unfinished gasoline which could be reprocessed quickly.



REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

Quotations are exclusive of the Federal tax of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasolines

	Aug. 28		Aug. 21	
OKLAHOMA (Group 3)—				
U. S. Motor grades:				
Below 63 octane	.03⅞	.04⅛	.03⅞	.04⅛
63-70 octane	.04½	.04⅝	.04½	.04⅝
60-62 400 grades:				
Below 63 octane	.03⅞	.04⅛	.03⅞	.04⅛
63-70 octane	.04½	.04¾	.04½	.04¾
64-66 375	.04⅛	.04⅜	.04⅛	.04⅜
68-70 360	.04⅜	.04½	.04⅜	.04½
NORTH TEXAS—				
U. S. Motor grades:				
Below 63 octane	.03¾	.03⅞	.03¾	.03⅞
63-70 octane	.04⅜	.04½	.04⅜	.04½
60-62 400	.03⅞	.04	.03⅞	.04
64-66 375	.04		.04	
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.04¼		.04¼	
63-70 octane	.05		.05	
60-62 400	.04¼	.04⅜	.04¼	.04⅜
68-70 360	.04⅜	.04⅝	.04⅜	.04⅝
ARKANSAS (Ark., N. La. & Miss. del.)—				
U. S. Motor grades:				
Below 63 octane	.04¼		.04¼	
63-70 octane	.05		.05	
CHICAGO (based on Oklahoma Group 3)—				
U. S. Motor grades:				
Below 63 octane	.03¾	.04	.03¾	.04
63-70 octane	.04½	.04¾	.04½	.04¾
60-62 400	.03¾	.04	.03¾	.04
64-66 375	.04	.04¼	.04	.04¼
68-70 360	.04¼	.04½	.04¼	.04½
Aviation fighting grade	.05	.05¼	.05	.05¼
PENNSYLVANIA (inland refineries)—				
58-60 U. S. Motor:				
Below 60 octane	.05⅝	.05¾	.05⅝	.05¾
60-64.9 octane	.06¼	.06⅜	.06¼	.06⅜
65-70 octane	.06⅞	.07	.06⅞	.07
68-70 350	.06½	.06⅝	.06½	.06⅝
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.07	.08	.07	.08
58-60 400	.08	.09	.08	.09
EAST COAST—				
U. S. Motor, below 60 octane:				
*New York	.05¾		.05½	.05¾
Baltimore	.05¼	.06	.05¼	.06
U. S. Motor, 60-64 octane:				
*New York (Bayonne)	.06		.05¾	.06
Philadelphia	.06	.06¼	.06	.06¼
Boston	.06	.0620	.05¾	.0620
Baltimore	.06	.06¼	.06	.06¼
Charleston, S. C.	.06	.06¼	.06	.06¼
U. S. Motor, 65 and above:				
*New York (Bayonne)	.06¼		.06	.06¼
Philadelphia	.06¼	.06¼	.06¼	.06½
Boston	.06¼	.0640	.06	.0640
Baltimore	.06¼	.06½	.06¼	.06½
Charleston, S. C.	.06¼	.06½	.06¼	.06½
GULF COAST (domestic)—				
U. S. Motor:				
Below 60 octane	.04⅝	.04¾	.04⅞	.05⅛
60-64.9 octane	.04¾	.05	.05⅛	.05⅜
65 octane and higher	.05	.05¼	.05⅜	.05⅝

*All grades of gasoline one-fourth cent less for small barge shipments.

Naphthas

	Aug. 28		Aug. 21	
PENNSYLVANIA (inland refineries)—				
50-52 450 (blending)	.05⅜	.05½	.05⅜	.05½
52-54 450 (blending)	.05⅜	.05½	.05⅜	.05½
54-56 450 (blending)	.05⅜	.05½	.05⅜	.05½
CHICAGO (based on Oklahoma Group 3)—				
50-52 450 (blending)	.03¾	.04	.03¾	.04
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-320 e.p.	.06¾	.07	.06¾	.07
Lacquer diluent, 180 i.b.p.-250 e.p.	.07¾	.08	.07¾	.08
Lacquer diluent, 140 i.b.p.-200 e.p.	.08¾	.09	.08¾	.09
Rubber solvent, 68-70 gr., 100 i.b.p.-300 e.p.	.06¾	.07	.06¾	.07
Stoddard solvent, 300 i.b.p.-410 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
Pet. thinner, 290-300 i.b.p.-415 e.p., over 83° flash	.06¼	.06½	.06¼	.06½
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.06¾	.07	.06¾	.07
Petroleum spirits	.05¾	.06	.05¾	.06

Natural Gasolines

	Aug. 28		Aug. 21	
OKLAHOMA (Group 3)—				
Grade 26-70	.03		.03	
Grade 18-55	.03½		.03½	
Low vapor pressure grades:				
14 lb. v.p. (max.)	.03¾		.03¾	
11 lb. v.p. (max.)	.04⅛	.04¼	.04⅛	.04¼
NORTH TEXAS—				
Grade 26-70	.03		.03	
Grade 18-55	.03½		.03½	
Low vapor pressure grades:				
14 lb. v.p. (max.)	.03¾		.03¾	
11 lb. v.p. (max.)	.04	.04¼	.04	.04¼
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
Grade 26-70	.03⅜		.03⅜	
CALIFORNIA—				
75-85 375	.06½	.06¾	.06½	.06¾

Kerosenes

(All kerosenes water white)

	Aug. 28		Aug. 21	
OKLAHOMA (Group 3)—				
41-43	.03	.03¼	.03⅛	.03¼
42-44	.03¼	.03½	.03¼	.03½
NORTH TEXAS—				
40-41	.02⅞	.03⅛	.02⅞	.03⅛
41-43	.03	.03¼	.03	.03¼
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
41-43	.03⅜		.03⅜	
ARKANSAS (Ark., N. La. & Miss. del.)—				
41-43	.03⅜	.03½	.03⅜	.03½
PENNSYLVANIA (inland refineries)—				
45	.04¼	.04⅜	.04¼	.04⅜
46	.04⅜	.04½	.04⅜	.04½
47	.04½	.04⅝	.04½	.04⅝
CHICAGO (based on Oklahoma Group 3)—				
41-43	.03⅛	.03¼	.03⅛	.03¼
42-44	.03⅜	.03½	.03⅜	.03½
CALIFORNIA (Pacific Coast consumption)—				
38-40 high burning test	.04¾	.05¼	.04¾	.05¼
NEW YORK (Bayonne, N. J.)—				
41-43	.05	.05¼	.05	.05¼
GULF COAST (domestic)—				
41-43	.04½	.04⅝	.04½	.04⅝

Petroleum Coke

(Prices per ton f.o.b. refineries in Chicago area)
(Refineries will absorb freight to 80 cents a ton)

	Aug. 28		Aug. 21	
Breeze (screenings)	5.00		5.00	
Pile run	5.00		5.00	
Lump and egg	7.00	8.00	7.00	8.00
Direct from still	6.00		6.00	

Furnace Oils and Tractor Fuels

(Zero cold test under 190° flash and good odor)

	Aug. 28		Aug. 21	
OKLAHOMA (Group 3)—				
32-36 straw	.02⅛	.02⅝	.02½	.02⅝
36-38 straw	.02⅛	.02⅝	.02½	.02⅝
38-40 straw	.02½	.02⅝	.02⅝	.02½
38-40 prime white	.02⅝	.02¾	.02⅝	.02¾
NORTH TEXAS—				
38-40 straw	.02⅝	.02¾	.02⅝	.02¾
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
36-40 furnace oil	.02⅞	.03	.02⅞	.03
ARKANSAS (Ark., N. La. & Miss. del.)—				
32-36 furnace oil	.02⅝	.02¾	.02⅝	.02¾
CHICAGO (based on Oklahoma Group 3)—				
32-36 straw	.02¾	.02½	.02⅜	.02½
38-40 straw	.02⅝	.02½	.02⅝	.02½
38-40 prime white	.02½	.02⅝	.02½	.02⅝
NEW YORK (Bayonne, N. J.)—				
36-40 (No. 1 grade)	.05¼	.05½	.05¼	.05½
32-36 (No. 2 grade)	.04¾	.05	.04¾	.05
21 industrial (No. 4 grade)	.04½	.05	.04½	.05

Gas Oil, Diesel Oil and Fuel Oil

(Gas oil per gallon; Diesel and fuel oils per barrel)

	Aug. 28		Aug. 21	
OKLAHOMA (Group 3)—				
32-36 gas oil cracking stocks	.01¾	.02	.02	.02⅛
U.G.I. gas oil	.01⅞	.02	.01⅞	.02
32-36, zero to 15 gas oil	.02½	.02¾	.02⅝	.02½
28-30, No. 3 burner oil	.95	1.00	.95	1.00
26-30, zero to 10 fuel oil	.85	.95	.85	.95
24-26 fuel oil	.75	.80	.75	.80
20-22 fuel oil	.70	.72½	.67½	.70
Below 16 fuel oil	.62½	.65	.62½	.65
NORTH TEXAS—				
32-36 gas oil, industrial	.01¾	.02	.01⅞	.02
22-26 fuel oil	.67½	.70	.67½	.70
Below 20 fuel oil	.57½	.62½	.57½	.62½
NORTH LOUISIANA (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.02½	.02⅝	.02½	.02⅝
14-16 fuel oil	.70	.75	.70	.75
ARKANSAS (Ark., N. La. & Miss. del.)—				
30-32 gas oil, zero	.02½	.02⅝	.02½	.02⅝
32-36 gas oil	.02⅝	.02½	.02⅝	.02½
14-16 fuel oil	.70	.75	.70	.75
CHICAGO (based on Oklahoma Group 3)—				
32-36 gas oil, industrial	.02	.02⅛	.02	.02⅛
28-30 zero to 10, fuel oil	.97½	1.00	.97½	1.02½
26-28 zero to 10, fuel oil	.87½	.90	.87½	.92½
22-26 zero to 10, fuel oil	.77½	.80	.77½	.82½
18-22 zero to 10, fuel oil	.62½	.67½	.62½	.67½
Below 18 fuel oil	.55	.60	.55	.60

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel less in all these areas.

PENNSYLVANIA (inland refineries)—				
36-40	.03⅞	.04	.03⅞	.04
CALIFORNIA—				
Los Angeles:				
30-34 gas oil per bbl.	1.10	1.26	1.10	1.26
27 plus Diesel	1.05	1.20	1.05	1.20
27 plus Diesel (bunkers)	1.13	1.20	1.13	1.20
12-16 (bunker at tidewater)	.82	.85	.82	.85
10-16 (cargo lots)	.66	.75	.66	.75
12-17 (tank cars)	.60	.80	.60	.80
San Joaquin Valley:				
10-18 (tank cars)	.60	.70	.60	.70
San Francisco:				
27 plus Diesel per bbl.	1.15	1.25	1.15	1.25
27 plus Diesel (bunkers)	1.19		1.19	
10-16 (bunkers)	.89		.89	
GULF COAST—				
28-30 gas oil	.03½	.03¾	.03½	.03¾
28-30 Diesel (bunkers)	1.80		1.80	
Bunker C (bulk cargoes)	.95	1.00	.95	1.00
Bunker C (bunkers)	1.05	1.10	1.05	1.10
NEW YORK (Bayonne, N. J.)—				
27 plus, gas oil	.04½	.05	.04½	.05
28-30 Diesel (lighterage 6½ cents per bbl.)	1.95		1.95	
*Bunker C (to ocean-going ships in N. Y. harbor)	1.30		1.30	

*Lighterage charge 5 cents per barrel additional.

Neutral Oils

(Vis. at 100° F. except Pennsylvania, and color N.P.A.)

	Aug. 28		Aug. 21	
OKLAHOMA (Group 3)—				
Zero to 10 Cold Test:				
150-3	.10		.10	
180-3	.11¼		.11¼	
180-4	.10¾		.10¾	
200-3	.11¾		.11¾	
200-4	.11¼		.11¼	
240-3	.13¾		.13¾	
240-4	.13¼		.13¼	
280-3	.14¾		.14¾	
280-4	.14		.14	
300-3½	.15¼		.15¼	
400-4	.17¼		.17¼	
100-2 paraffin oil	.05¾		.05¾	
15-30 Cold Test:				
200-3	.10¾		.10¾	
200-4	.10¼		.10¼	
240-3	.12¾		.12¾	
240-4	.12¼		.12¼	
280-3	.13¾		.13¾	
280-4	.13		.13	
GULF COAST—				
Pale Oils:				
200-3	.07½		.07½	
300-3	.08	.08¼	.08	.08¼
500-3½	.09	.09¼	.09	.09¼
750-3½	.09½	.09¾	.09½	.09¾
1,200-3½	.10	.10¼	.10	.10¼
2,000-4	.10¼	.10½	.10¼	.10½
Red Oils:				
200-5-6	.06¾	.07	.06½	
300-5-6	.07¼	.07½	.07	.07¼
500-5-6	.08¼	.08½	.08	.08¼
750	.08¾	.09	.08½	.08¾
1,200-5-6	.09¼	.09½	.09	.09¼
CALIFORNIA—				
Pale Oils:				
100-2½-3	.17½	.20½	.17½	.20½
200-2½-3	.17½	.20½	.17½	.20½
300-3-3½	.17½	.20½	.17½	.20½
350-3-4	.17½	.20½	.17½	.20½
400-3-4	.17½	.20½	.17½	.20½
450-3-4	.17½	.20½	.17½	.20½
550-3-4	.17½	.20½	.17½	.20½
600-3-4	.17½	.20½	.17½	.20½
Red Oils:				
200-4-5	.17½	.20½	.17½	.20½
300-5-6	.17½	.20½	.17½	.20½
350-5-6	.17½	.20½	.17½	.20½

400-5-6	.17½	.20½	.17½	.20½
450-5-6	.17½	.20½	.17½	.20½
500-5-6	.17½	.20½	.17½	.20½
600-5-6½	.17½	.20½	.17½	.20½
700-6½ plus	.17½	.20½	.17½	.20½
750-6½ plus	.17½	.20½	.17½	.20½
900-6½ plus	.17½	.20½	.17½	.20½
PENNSYLVANIA—				
150 vis. at 70° F., 3 color; 400-405 flash:				
Zero pour test	.23	.23½	.23	.23½
10 pour test	.22	.22½	.22	.22½
15 pour test	.21½	.22	.21½	.22
25 pour test	.21	.21½	.21	.21½
180 vis. at 70° F., 3 color:				
25 pour test	.24½	.25	.24½	.25
200 vis. at 70° F., 3 color:				
Zero pour test	.29½	.30	.29½	.30
10 pour test	.28½	.29	.28½	.29
15 pour test	.28	.28½	.28	.28½
25 pour test	.27½	.28	.27½	.28

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	Aug. 28		Aug. 21	
Bright Stocks:				
190-200 D	.20		.20	
150-160 D, 0-10	.17		.17	
150-160 D, 10-25	.16½		.16½	
150-160 25-40	.16		.16	
150-160 E	.16		.16	
Steam refined:				
630 light green (treated)	.13		.13	
600 light green (untreated)	.06	.08	.06	.08
600 dark green (untreated)	.04½	.07	.04½	.07
PENNSYLVANIA—				
Bright Stocks (Pennsylvania grade, No. 145-50 at 210; 540-550 flash): 8 color,				
10 pour test	.21½	.22	.21½	.22
15 pour test	.21	.21½	.21	.21½
20 pour test	.20½	.21	.20½	.21
25 pour test	.20	.20½	.20	.20½
Steam refined:				
600	.11½	.12	.11½	.12
650	.14	.14½	.14	.14½
600 Pennsylvania flash	.15	.15½	.15	.15½
600 Warren E filtered	.15	.15½	.15	.15½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	Aug. 28		Aug. 21	
124-126 white crude scale	.03¼	.03⅜	.03¼	.03⅜
PENNSYLVANIA—				
122-124	.0290	.0300	.0290	.0300
124-126	.0295	.0305	.0295	.0305
NEW YORK HARBOR—				
Wax (a.m.p.) in bags fully refined:				
120-122	.0420	.0430	.0420	.0430
123-125	.0440	.0460	.0440	.0460
125-127	.0445	.0470	.0445	.0470
128-130	.0480	.0495	.0480	.0495
130-132	.05	.0510	.05	.0510
133-135	.0545	.0570	.0545	.0570
135-137	.0570	.0595	.0570	.0595
124-126 crude scale	.0260	.0280	.0260	.0280
Petrolatum in barrels in carload lots:				
Dark green	.01⅞		.01⅞	
Amber	.02⅛	.03	.02⅛	.03
Extra amber	.03⅛	.03¼	.03⅛	.03¼
Lily white	.06¾	.06⅞	.06¾	.06⅞
Snow white	.07¾	.07⅞	.07¾	.07⅞
Cream	.05⅝	.05¾	.05⅝	.05¾
CHICAGO (f.o.b. switching district)*—				
122-124 wax	.0490	.0500	.0490	.0500
125-127 wax	.0515	.0525	.0515	.0525
127-129 wax	.0530	.0540	.0530	.0540
130-132 wax	.0590	.0600	.0590	.0600
132-134 wax	.0615	.0625	.0615	.0625

*Cents per pound on carlot orders in burlap bags of 225 lbs. approx. Add 3° F. a.m.p.

Export Prices

GASOLINE

GULF COAST—	Aug. 28		Aug. 21	
U. S. Motor	.04⅛	.04¼	.04⅛	.04¼
60-62 400	.04¼		.04¼	
61-63 390	.04⅜	.04½	.04⅜	.04½
64-66 375	.04½	.04⅝	.04½	.04⅝
LOS ANGELES, CALIF.—				
U. S. Motor grades:				
53-55 octane	.04	.04¼	.04	.04¼
55-65 octane	.04¼	.04½	.04¼	.04½
65-67 octane	.04½	.04¾	.04½	.04¾
67-69 octane	.04¾	.05	.04¾	.05
Above 69 octane	.05	.05¼	.05	.05¼
58-60 400 endpoint	.04¾	.05½	.04¾	.05½

KEROSENE

GULF COAST—				
41-43 prime white	.04	.04¼	.04	.04¼
41-43 water white	.04⅛	.04¼	.04⅛	.04¼
41 water white	.04¼	.04⅜	.04¼	.04⅜
LOS ANGELES, CALIF.—				
41-43 water white	.04¼	.04¾	.04¼	.04¾

LUBRICANTS

NEW YORK (f.a.s. in bbls.)—				
Cylinder Stocks:				
600 Warren E	.21½	.22	.21½	.22
600 S.R. unfiltered	.18	.18½	.18	.18½
650 S.R. unfiltered	.20½	.21	.20½	.21
600 flash S.R.	.22	.22½	.22	.22½
630 flash S.R.	.27	.27½	.27	.27½
Bright Stocks:				
8 color	.27	.27½	.27	.27½
6½ plus color, in dilution	.26	.26½	.26	.26½

NEUTRAL OILS

200-3 color	.34	.34½	.34	.34½
150-3 color	.28		.28	

PARAFFIN WAX (Fully Refined)

NEW YORK (prices per pound)—				
120-122 a.m.p.	.0405	.0425	.0405	.0425
123-125 a.m.p.	.0435	.0455	.0435	.0455
125-127 a.m.p.	.0440	.0465	.0440	.0465
128-130 a.m.p.	.04¾	.0490	.04¾	.0490
130-132 a.m.p.	.0495	.0505	.0495	.0505
133-135 a.m.p.	.0540	.0565	.0540	.0565
135-137 a.m.p.	.0565	.0590	.0565	.0590

Crude Oil Gravity Table

Degrees gravity—	Oklahoma and Kansas	North Texas, Central Texas and East Central Texas	North Louisiana and Arkansas	Gray County, Texas	Carson, Hutchinson and Moore Counties, Texas	Conroe, Texas	Salt Creek, Wyo.	Gulf Coast, Texas, and Louisiana	Gulf Coast, Texas, and Louisiana	Cotton Valley, Louisiana
	1	2	3	4	5	6	7	8	9	10
Below 20	....	....	....	....	....	....	....	$.82	$.82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$.70
25-25.9	*.78	....	....	....	....	....	....	.94	.94	.72
26-26.9	*.80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	*.84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$.79	$.79	....	....	....	$.84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.05	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.12	1.08	.90
Below 35	....	....	....	$.79	$.69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.12	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1.06	1.01	1.01	.89	.79	1.17	1.06	1.12	1.13	1.00
40 and over	1.08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1.02

Note—Effective June 1, 1934, Texas Co. purchases Texas Panhandle crude on a sweet crude and sour crude basis. Panhandle sweet crude is paid for on a basis of the Gray County prices posted above, and Panhandle sour crude is paid for on a basis of Carson and Hutchinson County prices posted above.

*The following companies purchasing crude oil in Kansas or Oklahoma, or both, begin their price schedule: Below 25°, 76 cents; 25-25.9°, 78 cents, with 2 cents added for each degree upward to 40 and over at $1.08; Carter Oil Co., Magnolia Petroleum Co., Pure Oil Co., Rock Island Refining Co., Shell Petroleum Corp., Sinclair Prairie Oil Marketing Co., Skelly Oil Co., and Wilcox Oil & Gas Co. All others begin their schedules at below 29°, 84 cents, excepting Phillex Oil Co., which begins with below 31° at 88 cents.

Column 1.—Effective September 29, Texas Co. in Oklahoma; Stanolind Crude Oil Purchasing Co. in Kansas and Oklahoma; Anderson & Prichard, Inc., in Oklahoma; Bell Oil & Gas Co. in Oklahoma; Carter Oil Co. in Oklahoma and Kansas; Deep Rock Oil Co. in Oklahoma; Derby Oil Co. in Kansas; Globe Refining Co. in Oklahoma; Golden Rule Refining Co. in Kansas; Gypsy Oil Co. in Oklahoma and Kansas; Kanotex Refining Co. in Kansas; Magnolia Petroleum Co. in Oklahoma; Mid-Continent Petroleum Corp. in Oklahoma; National Refining Co. in Kansas and Oklahoma; Shell Petroleum Corp. in Kansas and Oklahoma; Sinclair Prairie Oil Marketing Co. in Kansas and Oklahoma; Texas Co. in Oklahoma; Tide Water Oil Co. in Oklahoma; Vickers Refining Co. in Kansas; Continental Oil Co. in Kansas and Oklahoma; Empire Pipe Line Co. in Oklahoma and Kansas; Phillex Oil Co. in Kansas and Oklahoma; Pure Oil Co. in Oklahoma; Skelly Oil Co. in Kansas. Effective September 29, by White Eagle Oil Corp. in Kansas; Oct. 1 by Barnsdall Refineries, Inc., in Oklahoma.

Column 2.—Effective September 29, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Bell Oil & Gas Co., Continental Oil Co. Effective September 29, in the Van Pool, Van Zandt County, Pure Oil Co. posted below 29°, 84 cents, with 2 cents added for each degree up to 40 and over at $1.08.

Column 3.—Effective September 29, by Texas Co., Magnolia Petroleum Co., Gulf Refining Co. Effective December 22, Stanolind Oil & Gas Co. in Pine Island, Louisiana, and Marion County, Texas, posted below 29°, 79 cents, with 2 cents added for each degree up to 40 and over at $1.03. Effective March 17, 1934, by Standard Oil Co. of Louisiana and Louisiana Oil Refining Co. Starting with below 25° 71 cents, adding 2 cents for each degree upward to 40 and over at $1.03.

Column 4.—Effective September 29, by Texas Co., Humble Oil & Refining Co., Magnolia Petroleum Co., Sinclair Prairie Oil Marketing Co., and H. F. Wilcox Oil & Gas Co. On same day Phillex Oil Co. posted below 31°, 71 cents, with 2 cents added for each degree up to 40 and over at 91 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 5.—Effective September 29, by Texas Co., Humble Oil & Refining Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Wilcox Oil & Gas Co., Continental Oil Co. On same day, Phillex Oil Co. posted below 31°, 61 cents, with 2 cents added for each degree upward to 40 and over at 81 cents. Effective June 1, 1934, Texas Co. (see note above).

Column 6.—Effective September 29, by Humble Oil & Refining Co. and Tide Water Oil Co. and on September 30, by Texas Co., which on September 29 had posted a schedule of $1.07 to $1.12 with a 1-cent spread on each degree.

Column 7.—Effective September 29, by Stanolind Oil & Gas Co.

Column 8.—Effective September 29, by Humble Oil & Refining Co., Gulf Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., Sinclair Prairie Oil Marketing Co. On October 2, Magnolia Petroleum Co. posted Lockport, Louisiana; 20-20.9°, 84 cents with 2 cents added for each degree upward to 34 and over at $1.12, and in Cameron Meadows and Iowa, Louisiana; Below 20°, 72 cents with 2 cents added for each degree up to 34 and over at $1.02. These prices were 2 cents higher on each degree than Magnolia prices posted on September 29. Effective September 29, Shell Petroleum Corp. posted in Iowa, Louisiana, district: Below 20° 70 cents, with 2 cents added for each degree upward to 34° and over at $1; and in Black Bayou and White Castle, Louisiana: Below 20°, 80 cents, with 2 cents added for each degree upward to 34° and over at $1.10.

Column 9.—Effective September 30, Texas Co. (On September 29, Texas Co. had posted a schedule of 2 cents on each degree, but changed it on September 30).

Column 10.—Effective September 29, by Louisiana Oil Refining Co.

(California Crude Oil Prices on Page 31)

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

East Texas	$1.00
Stratman, Kans. (Sept. 29, 1933)	1.03
Corsicana (heavy) (June 17, 1933)*	.80
Other fields	(See gravity table)

Note—In East Texas, effective September 29, 1933, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Shell Petroleum Corp., Gulf Pipe Line Co., Tide Water Oil Co., Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co., Sun Oil Co., Panola Pipe Line Co., and Empire Oil & Refining Co.

*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard Glasscock, Mitchell (Sept. 29, 1933)	$.70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933)	.75
Pecos County, Yates shallow pool (Sept. 29, 1933)*	.65
Jones and Fisher Counties*	See gravity table

Note — Effective September 29, 1933, by Humble Oil & Refining Co., Texas Co., Gulf Pipe Line Co., Shell Petroleum Corp., Magnolia Petroleum Co., and by Stanolind Oil & Gas Co. in Winkler County, Texas.

*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers.

	(See gravity table)
Tomball (see note)*	$1.15
Livingston (Sept. 29, 1933)†	1.00
Cleveland (Jan. 11, 1934)	1.00
Greta (Sept. 29, 1933)	.85
Refugio, light	(See gravity table)
Refugio, heavy (Sept. 29, 1933)‡	.85
Markham and High Island	(See Gulf Coast gravity table)
Conroe	(See Conroe gravity table)

Note—Tomball, effective September 29, by Humble Oil & Refining Co. and October 2, by Magnolia Petroleum Co., and November 10, by Stanolind Oil & Gas Co.

*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy, by Humble Oil & Refining Co. Cleveland (Liberty County), posted by Magnolia Petroleum Co.

South Central and Southwest Texas

(See note below table)

Darst Creek	$.87
Mirando	.80
Luling (Sept. 29, 1933)	.75
Pettus	1.05
Salt Flat	.87
Lytton Springs (Sept. 29, 1933)	.95
Duval County (Sept. 29, 1933)	.80
Saxet	.85

Note—Effective on September 29 by Humble Oil & Refining Co., in Darst Creek, Mirando, Pettus, Salt Flat and Saxet. Effective September 29 in Darst Creek by Gulf Pipe Line Co. and Texas Co. Effective October 2 by Magnolia Petroleum Co. Effective in Pettus and Salt Flat on September 29 by Humble Oil & Refining Co. and Gulf Pipe Line Co. Luling and Lytton Springs by Magnolia Petroleum Co. Duval County by Texas Co. Saxet, effective September 29, by Humble Oil & Refinning Co. and Texas Co.

(Continued on Page 31)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

August 28, 1934

Taxes

The gasoline quotations given in the following tables include the 1 cent Federal tax, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon, or 3 cents a gallon off retail prices, is permitted for purchases running between 5,000 and 10,000 gallons a month, and 2 cents a gallon off tank wagon, or 4 cents a gallon off retail prices, for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Denver, Colo.	19.0	21.0	6.0	10.0
Pueblo	19 0	21.0	6.0	13.0
Grand Junction	21.5	23.5	6.0	15.0
Casper, Wyo.	18 0	20.0	5 0	11 5
Cheyenne	18 0	20 0	5.0	13.0
Butte, Mont.	21.0	23.0	5 0	17.5
Billings	22.5	24 5	6 0	16.5
Helena	23 0	25.0	6.0	17.5
Great Falls	21.5	23.5	6 0	17 5
Salt Lake, Utah	17.0	19.0	5.0	16 0
Boise, Idaho	22.5	24.5	6.0	18.0
Twin Falls	22.5	24.5	6 0	18 0
Albu'que, N. M.	18.0	20.0	*7.0	13 0

*One-cent city tax.

Effective March 1, 1934, discount to dealers with or without contract throughout Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Standard Oil Co. (Indiana)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Chicago	15.8	17.3	4 0	8 0
Decatur, Ill.	16.0	18.0	4 0	10.2
E. St. Louis	16.0	14.5	4 0	9.5
Joliet	14.2	16 2	4 0	10 2
Peoria	14.7	18.9	4.0	10 2
Quincy	16.6	17.1	4.0	10.0
Davenport, Ia.	16.6	17.1	4.0	10.1
Des Moines	14 0	17.1	4.0	8.0
Mason City	16.6	17.1	4.0	9.3
Sioux City	12.9	12.9	4.0	9.7
Duluth, Minn.	17.2	19.2	4 0	10.4
Mankato	16.8	16.8	4 0	10.3
Minneapolis	14.9	16 9	4 0	10.4
LaCrosse, Wis.	18.3	20 3	4 8	10.8
Green Bay	17.7	19 7	5 0	10 2
Milwaukee	17.1	19.1	5.0	9 7
Madison	17 4	19.4	5.0	9.9
Detroit, Mich.	16 0	18.0	4.0	10.5
Grand Rapids	16 7	17.7	4 0	10.2
Saginaw	17.6	18.0	4.0	10.5
Evansville, Ind.	17.7	19 7	5 0	10.0
Indianapolis	17.9	19 4	5 0	10.2
South Bend	18.2	20 2	5 0	10.5
Fargo, N. Dak.	17.5	19.9	4.0	12.1
Huron, S. Dak.	18 8	20 8	5.0	11.4
Sioux Falls	18 4	20.4	5.0	10 9
Kans. C., Mo.*	15.0	15.0	4.0	9.2
Springfield	15.1	17.1	3.5	9.1
St. Louis	15 0	17 0	3 5	8.7
St. Joseph*	11 4	12 4	4.0	8 8
Wichita, Kans.	14.6	16 6	4.0	10.2
Bartlesville, Ok.	16.0	18.5	5.0	10 5

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

Discounts to dealers, effective March 1, 1934: Undivided accounts, 4 cents a gallon on Red Crown Ethyl and Standard Red Crown, divided accounts, 3½ cents a gallon on Red Crown Ethyl and Standard Red Crown.

Stanolax Furnace Oil in Chicago

Effective June 27, 1934, f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), under 100 gallons, 8¼ cents. Effective May 16, 1934, No. 2 (30-34 stw. zero), under 150 gallons, 7⅝ cents; No. 3 (32-36 zero), under 150 gallons, 7¼ cents; No. 4 (12-16 zero), under 400 gallons, 6 cents; viscosity of No. 4, 90-115 at 100° F.; No. 5, under 400 gallons, 5¾ cents. For deliveries above stated quantities deduct 1 cent.

Naphtha

	Tank wagon*
Oleum spirits	16.9
V.M.&P. naphtha	18 0
Cleaners' naphtha	18 0
Stanisol	18.0

*Prices include 3-cent Illinois tax, but not 1-cent Federal tax.

Prices f.o.b. Chicago, September 13, 1933. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atlanta, Ga.	19.0	22.0	7.0	14.5
Augusta	20 0	22.0	7.0	14.5
Macon	20.0	22.0	7.0	14.5
Savannah	19.0	21.0	7.0	14.0
Birm'ham, Ala.	18.0	20.0	8.0	11.0
Mobile	20.5	22.5	8.0	12.0
Montgomery	21.5	23.5	8.0	15.0
Jackson, Miss.	18.5	20.5	7.0	13.0
Vicksburg	18.0	20.0	7.0	14.0
Jack'ville, Fla.	18.0	20.0	8.0	11.5
Miami	18.0	20.0	8.0	13.5
Pensacola	17.0	19.0	8.0	13.5
Tampa	18.0	20.0	8.0	12.5
Lexington, Ky.	18.5	20.5	6.0	11.5
Covington	17.0	19.0	6.0	11.5
Louisville	18.0	20.0	6.0	11.0
Paducah	14.0	16.0	6.0	11.0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia and Mississippi include 1 cent state tax; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline; in Florida an inspection fee of one-eighth cent on kerosene and gasoline. To Pensacola, Mobile and Birmingham state taxes on gasoline add 1 cent city tax.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Dallas, Tex.	14.0	16.0	5.0	8.0
Fort Worth	14 0	16.0	5.0	8.0
Houston	16.0	18.0	5.0	8.5
San Antonio	16 0	18.0	6.0	8.5
El Paso	18 0	20.0	6.0	11.0
Muskogee, Ok.	16.0	18.0	5.0	7.5
Okla. City	15.0	17 0	5.0	8.5
Tulsa	16.0	18.0	5.0	8.5
Ft. Smith, Ark.	16.5	18 5	5.0	8 0
Little Rock	19.0	21 0	7.5	9.0
Texarkana	17.0	19.0	5.0	8.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Atl'tic City, N.J.	19.0	18 5	4.0	10.0
Newark	18.3	17 5	4.0	9.5
Annapolis, Md.	19 6	19.1	5.0	10.0
Baltimore	19 1	18.6	5.0	9.5
Cumberland	20 6	20.1	5 0	12.7
Wash'g'n, D. C.	17.3	16.8	3.0	11.5
Danville, Va.	21 7	21.2	6.0	12.9
Norfolk	20.2	19.7	6.0	11.3
Petersburg	20.5	20.0	6.0	11.4
Richmond	20 5	20.0	6.0	11.7
Roanoke	21 8	21.3	6.0	12.9
Charls'n, W. Va.	20.0	19.5	5.0	12.6
Parkersburg	19.3	18.8	5.0	11.2
Wheeling	20.0	19.0	5.0	12.2
Charlotte, N. C.	23.4	22.9	7.0	13.5
Hickory	23.7	23.2	7.0	13.7
Mt. Airy	23.7	23.2	7.0	13.8
Raleigh	23 2	22.7	7.0	13.3
Salisbury	23 5	17.0	7.0	13.6
Charleston, S. C.	21.2	20.7	7.0	11.3
Columbia	23.0	22.0	7.0	13.2
Spartanburg	23.4	22.5	7.0	13.5

Price basis to dealers: Divided dealers at dealer price, which is 2½ cents above tank car; undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Omaha	17.0	18.0	5.0	10.0
McCook	17.7	18.7	5.0	10.7
Norfolk	17.4	19.4	6.0	10.4
North Platte	17.8	18.3	5.0	10.8
Scottsbluff	18.3	18.3	5.0	9.0

Note—Discount to dealers, including any rentals under lease and agency agreements: Undivided accounts, Standard Red Crown and Red Crown Ethyl Gasoline 4 cents. Reliance (third brand) 3 cents, under service station price. Divided accounts, Standard Red Crown Ethyl Gasoline 3½ cents. Reliance (third brand) 2½ cents, under service station price. Discounts to consumers covered only by form CD-1, official commercial consumer contract.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
N. Orleans, La.	20.8	20.0	*7.0	†10.0
Baton Rouge	20.2	19.7	6.0	†12.0
Alexandria	21.1	20.5	*7.0	†10.0
Lafayette	21.2	20.8	*7.0	†12.0
Lake Charles	21.2	20.7	*7.0	†12.0
Shreveport	19.0	18.5	6.0	†12.0
Knoxville, Tenn.	24.7	21.5	8.0	13.0
Memphis	23.1	21.5	8.0	10.5
Chattanooga	24.5	21.5	8.0	12.0
Nashville	24.0	21.5	8.0	11.0
Bristol	24 5	21.5	8.0	14.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax.

Price bases to dealers: Divided dealers at dealer price, which is 2½ cents above tank car; undivided dealers at dealer price less one-half cent.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline: Tank wagon†	Gasoline: Posted retail	Gasoline: Incl'ds tax of	Kero. tank wagon
San Francisco	17.5	19.5	4.0	13.5
Los Angeles	15.5	17.5	4.0	13.5
Fresno, Calif.	18.0	20.0	4.0	14.0
Phoenix, Ariz.	20.0	22.0	6.0	‡16.0
Reno, Nev.	20.0	22.0	5.0	15.5
Portland, Ore.	20.0	22.0	6.0	13.5
Seattle, Wash.	20.0	22.0	6.0	13.5
Tacoma	20.0	22.0	6.0	13.5
Spokane	23.0	25.0	6.0	18.0

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

‡Includes 5-cent state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Philadelphia, Pa.	18.5	17.5	4.0	10.0
Pittsburgh	18.0	18 0	4.0	10.0
Allentown	15.5	17 5	4.0	10.0
Erie	16.0	18.0	4.0	9.0
Scranton	16 0	18.0	4.0	10.0
Altoona	16 0	18.0	4.0	10.0
Dover, Del.	16.0	18 0	4.0	10.0
Wilmington	15 5	17.5	4.0	9 0
Springf'd, Mass.	15 5	17 5	4.0	8.75
Worcester	15 5	17.5	4.0	9.0
Hartford, Conn.	15.0	17.0	3.0	8.5
New Haven	14 0	16.0	3.0	8.5
Providence, R.I.	13 0	15.0	3.0	8.5

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

New York and Part of New England

STANDARD OIL CO. OF NEW YORK

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Albany, N. Y.	16.0	17.0	4.0	9.0
Met. New York	16.5	17 5	4.0	8.5
Buffalo	17 5	18.5	4.0	9.0
Rochester	17 0	18.0	4.0	9.25
Syracuse	17 0	18 0	4.0	9.25
Boston, Mass.	15.0	16.0	4.0	8.5
Portland, Me.	18.2	19 2	5.0	8.75
Manch't'r, N. H.	19.2	20.2	5.0	9 0
Burlington, Vt.	19.8	20.8	5 0	9.75

Commercial consumers allowed 2 cents discount below service station prices in accordance with CD-1 of oil industry's code.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Ohio points	17.5	19.5	5.0	*13.5

*Includes state tax of 1 cent, effective July 22.

Canada*

IMPERIAL OIL, LTD.
Imperial 3-Star Gasoline

	Gasoline: Tank wagon	Gasoline: Service station	Gasoline: Incl'ds tax of	Kero. tank wagon
Hamilton, Ont.	†21.0	23.5	6.0	17.5
Toronto, Ont.	†21.0	23.5	6.0	17.5
Brandon, Man.	20.3	23.3	7.0	21.8
Winnipeg, Man.	28.7	31.7	7.0	30.2
Regina, Sask.	29.0	32.0	8.0	31.5
Saskatoon, Sask.	31.8	34.8	8.0	34.3
Edmonton, Alta.	31.2	34.2	8.0	33.7
Calgary, Alta.	28.5	31.5	8.0	31.0
Vancouver, B.C.	†28.0	31.0	7.0	34.0
Montreal, Que.	24.0	27.0	8.0	17.0
St. John, N.B.	26.0	30.0	8.0	31.0
Halifax, N. S.	26.0	30.0	8.0	31.0

Imperial gallon used in Canada. †Governed by service station price.

Maritime provinces, all deals 4 cents off service station price. All other provinces open dealers 2.5 cents off service station price and 1 cent additional to 100 per cent accounts.

Retail Price Changes

Regular-Grade Gasoline and Kerosene

Standard Oil Co. of New Jersey August 14 advanced station gasoline .1 cent in Spartanburg. August 18 reduced station gasoline 1 cent in Salisbury; August 20 reduced it 1 cent further.

Standard Oil Co. of Nebraska August 15 reduced station gasoline 1 cent in McCook. August 15 reduced station gasoline 1.5 cents in North Platte. August 15 reduced tank wagon gasoline .2 cent, station gasoline 2.2 cents and tank wagon kerosene 2.5 cents in Scottsbluff. August 17 reduced station gasoline 1 cent in Omaha.

Standard Oil Co. of Kentucky August 16 advanced tank wagon and station gasoline 3.5 cents in Vicksburg. August 21 reduced tank wagon and station gasoline 1 cent in Montgomery.

Standard Oil Co. of Louisiana August 15 advanced station gasoline 2 cents in Alexandria. August 15 advanced gasoline 5 cents in New Orleans. August 15 advanced station gasoline 3 cents in Shreveport.

Standard Oil Co. of New York August 22 advanced tank wagon and station gasoline 2 cents in Boston.

Magnolia Petroleum Co., August 22, advanced tank wagon and station gasoline 2½ cents in Little Rock. August 22, advanced tank wagon and station gasoline 1½ cents in Houston.

Standard Oil Co. of Ohio announced it would reduce gasoline tank wagon and station prices one-half cent on August 29 at practically all points in the State except those in which prices were already abnormally low due to local price wars.

Gasoline Market in Group 3 Sluggish

(Continued from Page 24)

least a chance to achieve its ends. With hot oil and its products drenching the market it has no chance at all.

Natural Gasoline Steady

In the natural gasoline division the steady market of the last several weeks continued, with prices throughout the list unchanged. It was noted that while few if any new buyers appeared in the market long-established purchasers were increasing their commitments. This was attributed mainly of course to the seasonal rise in demand for this material, but it was pointed out at the same time that the motorist is asking for greater volatility in his motor fuel.

The large refining companies are ordering 26-70 natural now for use in the motor fuel they will put on the market in early October. Brokers and jobbers are purchasing stabilized grades in sufficient volume to keep the market in those grades firm.

Burning oils were strong. Although contract business had been pretty well cleaned up in the last few weeks, there was a brisk spot market attributable to the advent of cold weather in many parts of the country. Kerosene was fairly steady.

Lubricants, which had been gaining strength in the last several weeks, were in satisfactory position with indications that the next price changes would be upward. Inquiries for wax were growing at such a rate that refiners who have been out of the market indicated a disposition to get back in again.

NATURAL GASOLINE MANUFACTURE

Air Conditioning Seen As Possible Use for Propane

A general adoption of air conditioning in railway coaches seems imminent. Air conditioning, which started in diners, club cars and Pullman cars shows promise to spread to all types of passenger coaches by next year. Expansion of the policy by many of the roads already partially equipped and initial adoption by many more is being talked of in railroad circles. A marked increase was shown this summer in the number of passengers riding air-conditioned trains. Officials attribute the increase to this innovation. In spite of the alleged gentlemen's agreement among the western roads, to refrain from this additional expense, several companies are planning to bolt and adopt air conditioning. The planned expansion by the Santa Fe will draw Southern Pacific and other southwestern roads into the agreement.

The East, which saw its inception, has been swift in the endorsement of air conditioning. One road, the New Haven, is considering extension of the policy to cover all types of coaches. Other roads will follow if New Haven takes this step.

The cost of air conditioning railway cars, however, is still prohibitive to its general adoption. Costs range from $2,000 to $10,000 per car. Some railroad accountants, however, consider that an increase of one passenger fare per day per car warrants the added cost. On this basis all known installations may be considered as worthy investments. There are two general types: the ice-cooled type and the more expensive mechanical refrigeration type. The tendency is toward the latter, although ice-conditioned cars are popular as first installations. Ice conditioned cars have the disadvantage of requiring added labor and the placing of ice stations along the routes.

Three manufacturing concerns are furnishing the railways with most of this equipment. The Pullman Car & Manufacturing Co., a subsidiary of Pullman, Inc., has equipped approximately 700 cars, mostly with the less expensive type. Of the more expensive units, Safety Car Heating & Lighting Co. has installed about 330 units. Baltimore & Ohio, through contracts with the York Ice Machinery Corp., has equipped 300 cars. An estimated total to date of $4,000,000 has been spent by railroads for air conditioning. The present interest which railway companies are showing indicates that orders this winter will triple those of a year ago.

The comfort of these conditioned cars is thought to be luring back to railroads many passengers formerly lost to the bus trade. If this continues, buses may be forced into a program of some sort of comfort improvement for passengers. Although the great advantage that bus travel maintains over rail travel is economy, some inexpensive method might be developed for cooling bus interiors. A suggestion is offered in the invention of a refrigerated truck using propane as a cooling medium and then as a fuel. In this truck the liquefied gas is expanded in special cooling coils and then carbureted and burned in the motor. It is improbable that enough refrigeration could be secured for the bus from the propane used for fuel alone. Additional quantities might be expanded, however, and recompressed by propane powered pumps.

The development will probably await the day when air conditioning on railroads has become general and the movement has turned to private automobiles.

Petroleum Group of Chemical Society Announces Program for Fall Meeting

Subjects of an immediate interest and of a practical nature have been included in the four-day program of the Petroleum Section of the American Chemical Society, which will hold its fall meeting in Cleveland, Ohio, on September 10 to 14. A paper will be presented by W. E. Kuhn and J. F. Collins, Jr., on the subject, "The Deterioration of Absorption Oils in Service," and it should prove to be unusually interesting to natural gasoline plant operators. In all, 11 papers will be presented and will cover many subjects on refining as well. In some instances the paper will be read somewhat as a progress report on research work being undertaken to secure fundamental data so vital for the correct design and operation of processing equipment of all kinds. It is no secret that due to the complexity of the composition of crude oil and its fractions that equipment had to be designed to do certain things from data that was incomplete. Several years ago the Universal Oil Products Co. and John D. Rockefeller contributed substantial sums to carry on a program of research under the direction of the American Petroleum Institute and some of these problems have found their way into the chemical laboratories of the better equipped universities and industries. It is only natural that the results of the work of this nature be reported before the Petroleum Section of the society.

Although the society will hold four full days of meetings, the petroleum section will meet as a separate group on two days only. The program calls for a full schedule of papers on Tuesday and on Wednesday the section will close its program by noon. The program of the section follows:

PROGRAM OF THE PETROLEUM SECTION OF THE AMERCIAN CHEMICAL SOCIETY

F. W. Sullivan, Jr., Chairman
C. R. Wagner, Secretary; C. L. Johnson, Local Assistant

Tuesday Morning and Afternoon

9:00—Joseph D. White and F. W. Rose, Jr. The Isolation of a Nonanaphthene from an Oklahoma Petroleum.

9:30—R. T. Leslie. The Critical Solution Temperatures of Some Hydrocarbons in Sulphur Dioxide.

10:00—Wheeler G. Lovell, John M. Campbell and T. A. Boyd. Knocking Characteristics of Hydrocarbons.

10:45—C. G. Dryer, J. C. Morrell, Gustav Egloff and C. D. Lowry, Jr. Inhibitors in Cracked Gasoline. 3. Storage Stability as Related to Induction Period and Critical Oxidation Potential.

11:15—Gustav Egloff, J. C. Morrell, W. L. Benedict and Charles Wirth, 3d. The Effect of Alkyldisulfides on the Color Stability of Gasoline.

2:00—W. E. Kuhn and J. F. Collins, Jr. The Deterioration of Absorption Oils in Service.

2:40—Ogden FitzSimmons and E. W. Thiele. The Molecular Weight of Cracked Distillates.

3:10—W. B. McCluer and M. R. Fenske. A Method for Evaluating the Viscosity Temperature Characteristics of Oils.

3:40—L. P. Gaucher. The Specific Heat of Liquid Pure Hydrocarbons and Petroleum Fractions.

Wednesday Morning

9:00—C. O. Tonberg, D. Quiggle and M. R. Fenske. Efficient Small-Scale Fractionating Equipment.

9:30—K. M. Watson and Charles Wirth, 3d. An Apparatus and Conversion Chart for the Routine High-Vacuum Distillation of Oils.

10:00—Annual business meeting. Election of officers.

Losses of Natural Gasoline Gain With Larger Stocks and Warmer Weather

Production of natural gasoline during the first half of 1934 showed a gain of 1,200,000 gallons over the same period of 1933. This gain was distributed mainly through refinery utilization. Refineries blended better than 600,000 gallons more in 1934.

Stocks increased about 16 per cent in 1934. This gain will affect further losses throughout the summer as the bulk of natural stored will not be marketed until cooler weather arrives. An important movement is shown by the 166 per cent increase in natural blended in natural gasoline plants east of California. This reveals that the natural gasoline manufacturer by blending his product with naphtha at his own plant is attempting to draw nearer to the marketing end of the industry and to create a closer relationship with the jobber. The figures, though small, are important.

PRODUCTION AND DISTRIBUTION OF NATURAL GASOLINE
(Thousands of barrels of 42 gallons)

	June, 1934		May, 1934		Jan-June,	Jan-June,
	Total	Dly av.	Total	Dly av.	1934	1933
Production	2,828	95	2,907	94	17,509	16,309
Blended at refineries	1,933	65	1,690	55	11,486	10,577
Blended at plants east of Calif.	24	1	29	1	144	54
Run through pipe lines in Calif.	121	4	123	4	716	614
Jobbers, exports, etc.	327	11	521	17	2,127	2,629
Increase in all stocks	155	5	152	5	886	561
Losses	278	9	392	12	2,140	1,574
Total	2,828	95	2,907	94	17,509	16,309

Engineers Meet to Study Panhandle Gas Problem

Engineers representing seven major Texas pipe line companies are meeting in Dallas to work out a practical solution for the waste of gas in the Texas Panhandle. This waste is increasing so rapidly that a complete destruction of the field, one of the largest in the world, can already be predicted, it is stated in a report presented at the meeting. The engineers met Friday morning, August 24, in the office of the committee chairman, J. Harold Dunn, production engineer of the Lone Star Gas Co.

More than 1,000,000,000 cubic feet of gas is going into the air daily in the Texas Panhandle Field alone as the result of the operation of the gasoline stripping plants. These plants, under a law passed by the last legislature, are permitted to extract gasoline from the gas and blow the residue into the air.

The committee will consider additional data gathered recently, showing the feasibility of returning the residue gas to the ground, after the gasoline has been extracted, instead of blowing it into the air.

Dunn said if 62,634,000 bbls. of fuel oil were poured on the ground the waste of heat energy would be the same as the waste of 1,000,000,000 cubic feet of gas a day for a period of one year. In one year this loss of gas is equivalent in heat energy to 24,333,000 tons of Texas lignite coal, the report says. The amount of gas wasted in a year at the present rate is sufficient as a fuel to develop more than six times the electric power consumed in Texas. Wasted gas is sufficient as a fuel to gin 810,000,000 bales of cotton or to produce 730,000,000 tons of ice in a year.

The engineers making an effort to save this natural resource for the State represent the following companies: Texoma Natural Gas Co., Panhandle Eastern Pipe Line Co., Cities Service Gas Co., Consolidated Gas Service Co., North American Gas Co., Canadian River Gas Co. and Lone Star Gas Co.

Hanlon-Buchanan Expands Operations in East Texas

Hanlon-Buchanan, Inc., will connect approximately 250 more wells for gas in the Gladewater area of the East Texas Field and now has equipment on the ground or enroute which will permit a substantial increase in the output of the company's natural gasoline plant there. The plant was originally designed to produce 25,000 gallons daily. Actual production in recent weeks has been approximately 37,000 gallons per day and with the addition of three compressors and auxilliary equipment and after connecting to the additional wells, the plant is expected to make in excess of 45,000 gallons daily.

At present the gathering system ties together 1,122 wells in supplying the plant with gas. After completing the present program of expansion the plant will have a wide margin of advantage over all other plants in the field in the matter of output per day. Even at the present time the daily average production is more than any other plant by about 8,000 gallons.

TO BUILD LUCIEN PLANT

The Shell Petroleum Corp. will start construction this week on a booster station in the new Lucien Pool of Oklahoma. The plant will process 2,500,000 to 3,000,000 feet of gas per day, solely by compression methods.

NEWS FOR PETROLEUM REFINERS

Station Gasoline Qualities Vary Over 3-Year Period

A three-year study of the properties of service station gasoline has been completed at Walker laboratory of Rensselaer Polytechnic Institute. Daily tests were made on samples gathered from many stations. The greatest variation was found to be in the volatility. This is due to different conditions of weathering in transportation and storage, both beyond the control of refiners. Variation in the proportional amounts of straight-run, cracked, natural and hydrogenated gasolines blended also had a marked effect on the "test" efficiency. Products of the major companies showed little overall variation from month to month. Vapor lock was found to decrease appreciably over the period of study, due both to better manufacturing control, and improved fuel lines in automobiles. Improvements in manufacturing processes showed their effect on the products, and the general trend was to better qaulity in all brands.

QUEBEC REFINERY ENLARGED

MONTREAL, Quebec, Aug. 25.—The McColl-Frontenac Oil Co. refinery at Montreal East has been enlarged by the addition of two modern high-pressure cracking units, increasing the capacity from 5,000 to 12,500 bbls. of crude oil daily. This addition brings the company's total refining capacity up to 17,500 bbls. of crude oil daily, with complete cracking.

The construction of the two units necessitated other work in order to bring the equipment into operation. Additions were made to the stripping plant, water and boiler plant auxiliaries, pipe lines, etc. At the same time other changes were effected designed to improve the general efficiency of the plant and result in greater flexibility in its general operation.

TEXAS CONTRACT AWARDED

The Texas state contract for petroleum products was awarded to the Magnolia Petroleum Co. for the coming fiscal year starting September 1. Magnolia, which will furnish the State with approximately $1,200,000 worth of gasoline, motor oil and grease, submitted the lowest bid for products. The board estimated that 7,000,000 gallons of gasoline would be needed next year, of which 347,000 gallons will be purchased through filling stations. The discount on gasoline in the new contract will be 2 cents a gallon as against 3.7 cents during this fiscal year.

ENFORCE TEXAS TAX LAWS

More stringent enforcement of gasoline tax laws in Texas and increased registrations have increased state revenues from gasoline taxes for the first six months of 1934 by $2,500,000 over the same period last year, the Texas Good Roads Association reports. Comptroller G. H. Sheppard, in charge of enforcement of the state's gasoline tax collections has a 60-man force in the field charged with preventing bootlegging and tax evasion. The state last month won its most important court case which resulted in the conviction of a refinery head charged with filing false reports of motor fuel sales.

WINS SAFETY CONTEST CUP

With the record of but one accident for the first six months of 1934, the Ponca City Refinery of the Empire Oil and Refining Co. was awarded the company's safety cup. This is awarded each six months to the plant having the smallest accident record, based on frequency and severity.

Motorists Pay State More Tax Revenue Than Property Owners, Survey Reveals

Motorists are required to pay a far greater proportion of state revenue than is paid by property owners, figures compiled by the American Petroleum Institute reveal. In 1932, the last year for which data on state incomes are available, motorists through gasoline taxes and license fees, paid 39 per cent of all state revenues, as compared with 15 per cent derived from general property taxes.

Nearly one-fourth of the aggregate income of the states that year came from the gasoline tax. In none of the nine sections of the country did property owners pas as large a share of the total revenue as was paid in license fees and gasoline taxes combined, and in only the mountain region, comprising Montana, Idaho, Wyoming, Colorado, New Mexico, Utah, and Nevada, did property produce as large a share of the total revenue as the gasoline tax alone.

The committee found that on the Pacific Coast property owners paid only 9 per cent of the aggregate income of the states in that region, while motorists paid 38 per cent. In the Middle Atlantic section, composed of New York, Pennsylvania, and New Jersey, 7.3 per cent of the total revenue was derived from property taxes, as compared with 33.8 per cent from motor levies. In the South Atlantic region, running along the sea coast from Delaware to Florida, less than 12 per cent of income was obtained from general property taxes, while nearly 44 per cent was paid by motorists.

A table showing the proportion of the total state revenues derived from property taxes, gasoline taxes, and motor fees (including gasoline taxes) in each of the nine sections of the country is given below. No figures for the District of Columbia are included in any of the tabulations.

	Per cent of total		
	From property tax	From gasoline tax	From motor taxes*
New England	11.4	18.7	32.4
Middle Atlantic	7.3	17.2	33.8
South Atlantic	11.8	30.3	43.9
East South Central	21.0	28.0	40.3
West South Central	23.3	25.9	39.6
East North Central	20.2	30.0	48.7
West North Central	18.7	19.5	38.0
Mountain	25.2	20.0	29.3
Pacific	9.2	28.0	38.0
All 48 states	14.9	23.7	39.0

*Gasoline tax and registration fees.

EXPECT RICHFIELD SALE

LOS ANGELES, Calif., Aug. 27.—Assistant Attorney General Blair, in charge of Indian affairs, public lands and buildings, anticipates sale of the properties of Richfield Oil Co. of California and Pan American Petroleum Co. of California under government foreclosure proceedings early in September. Mr. Blair conferred with local officials regarding the proposed sale.

Decree for the sale has been approved by attorneys for he equity litigants in the oil company suits, said Mr. Blair, adding that it will be submitted to U. S. District Judge James about September 1. He said his department is primarily interested in the collection of $5,000,000 due the Government out of the settlement.

START WAYCO REFINERY

The new Toledo, Ohio, plant of the Wayco Refining Co., of Detroit, Mich., was placed in operation last week with more than 12,000 bbls. of Michigan crude oil in storage and a capacity of 10,000 gallons of lubricating oils daily.

The new concern is a successor to the Wayco Oil Corp. operated prior to 1928 by Andrew G. and Edward F. Schlee, until they sold out to the Paragon Oil Co. after seven years of successful operations.

Officers of the new company are: President, John N. Stalker, former president of the Union Guardian Trust Co. of Detroit; vice president, Andrew G. Schlee; secretary-treasurer, Harry Eberline, of the General Management Corp.; sales director, Edward F. Schlee, and director, Ralph Lane, of Detroit.

PRESSURE VESSEL CODE

The joint A.P.I.-A.S.M.E. code for the design, construction, inspection and repair of unfired pressure vessels for petroleum liquids and gases is now on the press and will be available early in September. This first edition of the code covers both welded and riveted vessels for operation at gauge pressures above 15 pounds per square inch and at temperatures not over 1,000° F. The cost of a copy will be $1.

FEDERAL TAXES INCREASING

The U. S. Bureau of Internal Revenue reports tax revenue from gasoline, lubricating oil and pipe line transportation during the first six months of 1934 which bear out assertions that taxes in the United States are rising so rapidly that this country is now the world's most heavily taxed nation. Federal taxation of the petroleum industry during the first six months of this year increased 32 per cent over the similar period in 1933. According to the bureau, the Federal Government collected $100,700,995.61 this year from January to June, inclusive, in the form of gasoline, lubricating oil, and pipe line taxes, compared with $76,144,483.47 collected last year. The largest gain in revenue came from the gasoline tax, collections for the first six months amounting to $83,538,631.73, a gain of 34.5 per cent. Lubricating oil revenue gained 32 per cent, while the pipe line tax increased 3 per cent.

IMPORTS DURING JUNE

The following statistics of imports of petroleum and its products for the month of June, 1934, are reported by the Department of Commerce:

	Bbls.
Petroleum, crude	3,364,679
Fuel oil	284,562
Unfinished dist.	76,769
Gas oil	1,347
Paraffin oil	....
Liquid derivatives	32
Gasoline	169
Finished light products	....
Naph.ha	....
Illuminating oil	592
Lubricating oils	1,394
Paraffin wax (pounds)	2,432,211

Organize Parsons Co. to Build Cracking Units

MOUNT VERNON, Ohio, Aug. 25.—The Ralph M. Parsons Co. has just been organized to carry on the consulting and contracting business which Mr. Parsons personally has been conducting for several years. Headquarters for the company is at Mount Vernon, Ohio.

While the organization will design and build all kinds of refining equuipment, it will specialize in the design and construction of cracking units for small refineries to operate the Dubbs process under Universal Oil Products Co. license and the rebuilding of existing units to operate under license contract and to insure highest efficiency.

Mr. Parsons has been engaged in commercial development work for many

RALPH M. PARSONS

years. During the war he was active in aircraft engine designing, construction and operation. After he was released from active service in the navy as a reserve officer he was employed as aeronautical engineer to complete the design and construction of the Navy Department aeronautical engine laboratory at the Philadelphia Navy Yard.

Since 1925 he has been engaged in design, construction and operation of refineries and refinery equipment. During this time a major portion of the work was in connection with the design and construction of cracking processes.

Mr. Parsons early recognized the need for a small, fully licensed cracking unit, designed to meet the requirements of refiners having a limited supply of charging stock. Accordingly, three years ago, he undertook to adapt and install such a cracking unit.

GASOLINE PRICE CUTTING

A Federal investigation is under way in New Orleans to learn whether prices fixed by a stabilization committee are being disregarded. Prices of 18½ cents for standard grades of gasoline, 20 cents for medium and 22 cents for the highest grade were met by major and principal independent companies who raised their prices 4½ to 5 cents a gallon on August 15.

Federal injunctions will be sought if price cutting by irresponsible dealers is not stopped, according to Joseph Gallo, president of the New Orleans independent oil marketers association.

More Optimism Evident in Chicago Area Although Buying at Rather Low Ebb

By SPECIAL CORRESPONDENT

CHICAGO, Aug. 27.—Conflicting elements continue to be at work in the tank car gasoline market, and it is difficult at this time to determine either the underlying trend or the ultimate direction of market prices. Nevertheless in sentiment generally expressed in the trade here, somewhat more optimism is being felt than for some time over the general market prospects. This has followed a period in which there has been comparatively little cheerfulness anywhere.

The holding up of East Texas gasoline shipments on railroad commission orders has been making itself felt to some extent as a market factor. Certainly it has decreased the number of extremely low-priced gasoline offers. It also appears to be creating the feeling that the large-scale gasoline buying program now under consideration on the part of the major companies has a better chance of success. Jobbers are noncommittal, however, and are on the side lines, for the most part.

Little Spot Business

The actual volume of new business appearing in the spot market has been quite slow for some time. Despite the approach of the Labor Day holiday and the feeling that jobber gasoline stocks are so low as to make a certain amount of new buying really imperative, the real buying is not reaching very large totals. Contract orders, however, are holding up fairly well. This bolsters the belief that the actual level of consumption continues to reach good totals. Major company gallonage reports are still presenting quite spotty appearances, based largely on the fact that drought conditions have been of a spotty and irregular nature and have affected some sections much worse than others.

The recent increases generally adopted for octane brackets have not yet had any generally recognizable effect, except to throw most of the gasoline which normally sold for regular at retail into regular in tank car markets. Some objections are heard and also a good many expressions of approval. Demand is largely concentrated in the regular gasoline product in virtually all regions. The amount of blending which is now going on in the jobbing trade is of unknown proportions, but it probably is not as heavy as it was some time ago.

Prepare for Winter

Various oil companies, large and small, are making preparations for the fall and winter sales campaigns and also for the modification of the specifications for their products to conform to winter needs. The general feeling is that winter gasoline demand this year will be quite good.

Tank wagon and retail price cuts are still worrying jobbers and major companies. The number and severity of these cuts for the Middle West as a whole are not greatly changing, but the locale of them is shifting back and forth. Some price wars are being ended, others breaking out. This is one condition which makes jobbers slow to order anything more than bare necessities in the way of gasoline.

Heating Oils

The coming of the first touches of cool weather in some of the lakes regions in the past few days has put the trade, both buyers and sellers, more in the mood of thinking about fall and winter heating oil needs. Considerable material of this kind has been contracted by distributors

(Continued on Page 44)

Crude Oil Prices

(Continued from Page 27)

Effective September 29 in Salt Flat by Shell Petroleum Corp.

Rocky Mountain States

Iles, light (Sept. 29, 1933)	$.96
Iles, heavy (September 29, 1933)	.90
Florence, Colo. (June 17, 1933)	.80
Fort Collins and Wellington, Colo. (June 17)	(See Salt Creek prices)
Big Muddy (Sept. 29, 1933)	1.01
Frannie, light (May 1, 1934)	.70
Frannie, heavy (Sept. 29, 1933)	.62
Salt Creek and LaBarge (Sept. 9, 1933)	See Stanolind Mid-Continent price schedule
Grass Creek, light (Sept. 29, 1933)	1.18
Grass Creek, heavy (Dec. 15, 1933)	.45
Elk Basin (Sept. 29, 1933)	1.18
Rock Creek (Sept. 29, 1933)	1.02
Dutton Creek (July 8, 1933)	See Mid-Continent gravity prices
Lance Creek (Dec. 16, 1932)	.92
Poison Spider (Mar. 5, 1931)	.70
Hudson (June 2, 1931)	.65
Lander (Mar. 5, 1931)	.40
Rex Lake (Feb. 22, 1930)	1.10
Osage	1.08
Lost Soldier (Sept. 30, 1933)	.88
Hamilton Dome:	
Below 18° (July 1, 1934)	.52
18° and above (July 1, 1934)	.62
Torchlight (Sept. 29, 1933)	1.18
Greybull (Sept. 29, 1933)	1.18
Pondera	1.15
Sunburst (Sept. 29, 1933)	1.35
Cat Creek, Montana	1.07
Hogback (Sept. 29, 1933)	1.11
Lea County, N. Mex. (Sept. 29, 1933)	.75
Maljamar (Sept. 29, 1933)	.70
Artesia-Jackson (Dec. 1, 1933)*	.75

Note—Salt Creek, Torchlight, Elk Basin, Grass Creek, Frannie, Greybull, Hogback and Iles by Stanolind Oil & Gas Co. Elk Basin, Grass Creek light, Big Muddy, Rock Creek and Sunburst by Ohio Oil Co. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective September 29, 1933, by Humble Oil & Refining Co. and other buyers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro, Hamilton Dome, Wyo., by Stanolind Oil & Gas Co.

*Continental Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$.70
Tullos, Urania, La., (Jan. 13, 1934)	.87
Nevada, Ark. (Sept 29, 1933)	.60
East El Dorado (Sept. 29, 1933)	.70
Converse, La. (Mar. 17, 1934)	1.03
Elm Grove, La. (Sept. 29, 1933)	.75
Holly, La. (Nov. 17, 1934)	1.03
Pleasant Hill, La. (Mar. 17, 1934)	1.03
Zwolle, La. (Mar. 17, 1934)	1.03
Champagnolle, Ark. (Mar. 17, 1934)	.81
Lisbon, Ark. (Mar. 17, 1934)	1.03
Stephens, Ark. (Sept. 29, 1933)	.70
Urbana, Ark. (Mar. 17, 1934)	.60
Other fields	(See gravity table)

Note—Smackover: Effective September 29, 1933, Texas Co., Magnolia Petroleum Co., Standard of Louisiana, Louisiana Oil Refining Corp., Gulf Refining Co. and Phillips Petroleum Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co., Nevada by Standard Oil Co. of Louisiana. Urbana posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co. Converse, Holly, Zwolle and Urbana by Standard Oil Co. of Louisiana; Elm Grove by Simmons Oil & Refining Co.; Pleasant Hill by Standard Oil Co. and Magnolia Petroleum Co.; Champagnolle by Standard Oil Co. and Lion Oil & Refining Co.

Eastern States

TIDE WATER PIPE CO.
(Effective May 1, 1934)

Bradford, Pa.	$2.55
Alleghany, N. Y.	2.55

SOUTH PENN OIL CO.
(Effective May 1, 1934)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$2.55
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.32
Pennsylvania Grade Oil in Eureka Pipe Line lines	2.17
Pennsylvania Grade Oil in Buckeye Pipe Line lines	2.07
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Oct. 2, 1933)	1.33

PENNZOIL CO.
(Effective May 1, 1934)

Pennsylvania Grade Oil in National Transit Lines:	
Group A (Includes Cochran, Franklin, Hamilton and Doolittle districts.)	$2.47
Group B (Includes Titusville district.)	2.40
Group C (Includes Turkey and Tidioute districts.)	2.40
Group D (Includes Bear Creek and Porkey districts.)	2.44
Group E (Includes Eldenau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson, Kennerdell, Emienton, Tiona, Lacey and Kinzua districts. Price depends on length of pipe line haul to plant at Oil City.	2.42

PURE OIL CO.
(Effective May 1, 1934)

Cabin Creek, W. Va.	$2.17
Bradford Hollow, W. Va.	2.17
Kelly Creek, W. Va.	2.17

Middle Western States

OHIO OIL CO.
(Effective September 29, 1933)

Lima	$1.30
Illinois (Jan. 5, 1934)	1.13
Princeton, Ind. (Jan. 5, 1934)	1.13
Plymouth	Shut in
Western Kentucky (May 26, 1934)	$1.00
Midland, Mich. (Sept. 30, 1933)*	1.02
Oceana, Mich. (Oct. 5, 1933)	.90
Somerset, Ky. (Sept. 30, 1933)	1.23
Hart County, Ky. (Oct. 1, 1932)	1.13

*Posted by Pure Oil Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted price. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium. Hart County, Kentucky, crude purchased by Stoll Refining Co. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

Canada

Ontario (September 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (May 21, 1934):†	
Clear naphtha	$2.56
Discolored naphtha	2.37
Crude oil, 50 gravity	2.19
Crude oil, 45 to 49.9	2.07
Crude oil, 40 to 44.9	1.89

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$0.94

*F.o.b. ship, based on May transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO. OF CALIFORNIA
(Effective September 6, 1933)

For current purchases of crude oil at the well (unless otherwise specified.) (All gravities above those quoted take highest price offered in that field.)

Gravity—	Long Beach	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda, Brea Canyon	Athens-Rosecrans	Torrance	Richfield	Whittier, La Habra	Montebello	Santa Fe Springs	La Habra-Coyote	Midway-Sunset Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Coyote
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	..	$.65	$.65	$.65	$.65	....	$.65	$.57	$.57	$.57	$.65
15-15.9	.65	.65	.69	.69	.66	.69	....	.66	.65	.65	.65	....	.65	....	....	....	.65
16-16.9	.66	.65	.72	.72	.69	.72	....	.69	.67	.68	.66	....	.65	....	....	....	.66
17-17.9	.69	.65	.75	.76	.72	.76	....	.72	.70	.71	.66	....	.65	....	....	....	.66
18-18.9	.72	.65	.78	.80	.76	.79	....	.76	.74	.74	.65	....	.71	.61	.61	.59	.71
19-19.9	.75	.65	.81	.83	.80	.83	....	.79	.78	.78	.65	....	.74	.64	.65	.62	.74
20-20.9	.78	.65	.83	.87	.83	.85	....	.81	.82	.81	.66	....	.78	.67	.69	.65	.78
21-21.9	.81	.72	.86	.90	.87	.88	....	.83	.85	.84	.69	$.73	.81	.70	.73	.69	.81
22-22.9	.84	.76	.89	.94	.90	.92	....	.86	.89	.87	.72	.76	.84	.72	.76	.72	.84
23-23.9	.88	.81	.92	.97	.94	.95	$.83	.89	.92	.90	.76	.79	.87	.77	.79	.75	.87
24-24.9	.91	.85	.95	1.01	.97	.98	.86	.92	.97	.93	.80	.83	.90	.81	.82	.78	.90
25-25.9	.94	.89	.98	....	1.00	1.01	.90	.95	1.00	....	.85	.87	.93	.85	.85	.81	.93
26-26.9	.97	.93	1.01	....	1.04	1.04	.94	.98	1.04	..	.89	.90	.96	.89	.88	....	.96
27-27.9	1.00	.98	1.04	....	....	1.07	.97	....	1.08	....	....	.94	.99	.93	.91	....	.99
28-28.9	1.03	1.02	1.07	....	....	1.10	1.01	....	1.11	....	....	.98	1.02	.97	.94	....	1.02
29-29.9	1.06	1.05	1.09	....	....	....	1.04	....	1.15	....	....	1.01	1.05	1.01	.97	....	1.06
30-30.9	1.09	1.10	1.12	....	....	....	1.08	....	....	....	....	1.05	1.09	1.05	1.00	....	1.09
31-31.9	....	....	....	....	....	....	1.12	....	....	....	....	1.08	1.12	1.09	....	....	1.12
32-32.9	....	....	....	....	....	....	1.16	....	....	....	....	1.12	1.15	1.13	....	....	1.15
33-33.9	....	....	....	....	....	....	....	....	....	....	....	1.16	1.18	1.17	....	....	1.18
34-34.9	....	....	....	....	....	....	....	....	....	....	....	1.19	1.21	....	....	....	1.21
35-35.9	....	....	....	....	....	....	....	....	....	....	....	1.23	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	1.26	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	....	....	....	....	1.30	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	....	1.34	....	....	....	....	....

Additional Standard Oil Quotations

Mountain View—Effective July 3, 1934, the following are the prices of the Standard Oil Co. of California for its current purchases of crude oil at the well in the Mountain View Field: 14 to 19.9 degrees, 57 cents; 20-20.9, 58 cents; 21-21.9, 59 cents; 22-22.9, 61 cents; 23-23.9, 63 cents; 24-24.9, 66 cents; 25-25.9, 69 cents; 26-26.9, 73 cents; 27-27.9, 75 cents; 28-28.9, 78 cents; 29-29.9, 81 cents; 30-30.9, 84 cents; 31-31.9, 87 cents; 32-32.9, 90 cents; 33 degrees and above, 93 cents.

Elwood Terrace—F.o.b. ship, 33 degrees, $1.03; 34 degrees, $1.06; 35-35.9, $1.09; 36-36.9, $1.12; 37 degrees and over, $1.15.

Newhall—14 degrees and over, 57 cents.

McKittrick and Kern River—14 degrees and over, 57 cents.

Wheeler Ridge—14 to 17.9 degrees, 57 cents; 18-18.9, 58 cents; 19-19.9, 61 cents; 20-20.9, 64 cents; 21-21.9, 67 cents; 22-22.9, 70 cents; 23-23.9, 73 cents; 24-24.9, 76 cents; 25 degrees and over, 79 cents.

Kettleman Hills—33-33.9 degrees, 93 cents; 34-34.9, 96 cents; 35-35.9, 99 cents; 36-36.9, $1.02; 37-37.9, $1.06; 38-38.9, $1.08; 39 degrees and over, $1.11.

The Texas Co. posted in Shiells Canyon, South Mountain and Santa Paula as follows: 14 to 17.9, 57 cents; 3 cents added for each degree up to and including 26-26.9 degrees at 84 cents; then 4 cents added for each degree up to and including 30 degrees and over at $1. Company posts Standard Oil Co.'s Montebello prices in Montebello and North Whittier, and posts Standard Oil Co. prices in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield and Santa Fe Springs, all effective September 6.

General Petroleum Co. posts Standard Oil Co. prices in Athens, Rosecrans and Signal Hill; Alamitos Heights up to 26-26.9; Santa Fe Springs up to 25-25.9; Richfield up to 25-25.9; Brea Canyon and Olinda up to 25-25.9, and Torrance up to 25-25.9.

Union Oil Co., effective September 6, posts same price as Standard Oil Co. in all fields in which both purchase, excepting that in Athens-Rosecrans, Union Oil Co. posts 31-31.9, 72 cents, and 33-33.9, $1.18; 34-34.9, $1.21, and 35-35.9, $1.24.

Associated Oil Co., effective September 6, posted same prices for the same grades as Standard Oil Co. of California, excepting that in some fields its gravity scale stops as follows: Huntington Beach, 26 degrees and over; Seal Beach and Alamitos Heights, 24 degrees and over; Coyote Hills, 23 degrees and over; Richfield, 25 degrees and over; Torrance, 25 degrees and over; Inglewood, 24 degrees and over; Santa Fe Springs, 25 degrees and over; Midway-Sunset, Elk Hills, Buena Vista Hills, 30 degrees and over. Also Associated pays 52 cents for oil of 11 to 13.9 gravity in McKittrick, Kern Front, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills and Coalinga.

Petroleum Produced in the United States, 1859-1933 by States

(Thousands of barrels of 42 U. S. gallons)

Year—	New York	Penn. sylvania	Ohio	West Virginia	California	Kentucky	Tennessee	Colorado	Indiana	Illinois	Kansas	Texas	Oklahoma	Wyoming	Michigan	Louisiana	N Mex.	Montana	Arkansas	Other*	Total Quantity	Total Value at wells (thousands of dollars)	Average per barrel	Year
1859-1875	(†)	†4,072	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	74,072	216,781	$2.91	1859-1875
1876	....	†8,969	....	120	....	12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9,133	22,983	2.52	1876
1877	....	†13,135	....	172	....	13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	13,360	31,789	2.38	1877
1878	....	†15,164	38	180	15	20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	15,397	18,045	1.17	1878
1879	(†)	†19,685	29	180	20	40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	19,914	17,211	.86	1879
1880	(†)	†26,028	39	179	40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	26,286	24,601	.94	1880
1881	(†)	†27,376	34	161	100	....	....	....	....	....	....	....	....	....	....	....	....	....	....	(‡)	27,661	25,448	.92	1881
1882	6,665	23,368	40	128	129	....	....	....	....	....	....	....	....	....	....	....	....	....	....	(‡)	30,450	23,791	.78	1882
1883	4,004	19,325	47	126	143	....	(‡)	....	....	....	....	....	....	....	....	....	....	....	....	(‡)	23,450	20,590	1.10	1883
1884	3,231	20,541	90	90	262	....	(‡)	....	....	....	....	....	....	....	....	....	....	....	....	(‡)	24,218	20,596	.85	1884
1885	2,656	18,118	662	91	325	....	(‡)	....	....	....	....	....	....	....	....	....	....	....	....	(‡)	21,859	19,198	.88	1885
1886	2,151	23,647	1,763	102	677	....	(‡)	....	....	....	....	....	....	....	....	....	....	....	....	(‡)	28,065	19,996	.71	1886
1887	2,075	20,281	6,013	115	690	....	(‡)	76	....	....	....	....	....	....	....	....	....	....	....	(‡)	28,283	18,877	.67	1887
1888	....	†16,591	12,472	544	303	....	(‡)	298	....	....	....	....	....	....	....	....	....	....	....	(‡)	27,612	17,948	.65	1888
1889	1,897	†28,458	16,125	493	307	....	(‡)	317	33	1	1	(‡)	....	....	....	....	....	....	....	(‡)	35,164	26,963	.77	1889
1890	(†)	†28,458	16,125	493	307	....	(‡)	369	64	1	1	(‡)	....	....	....	....	....	....	....	(‡)	45,824	35,365	.77	1890
1891	1,585	31,424	17,740	2,406	324	‡9	(‡)	666	137	1	5	(‡)	(‡)	....	....	....	....	....	....	(‡)	54,293	30,527	.56	1891
1892	1,273	27,149	16,363	3,810	285	‡7	(‡)	824	698	1	6	(‡)	(‡)	....	....	....	....	....	....	(‡)	50,515	25,907	.51	1892
1893	1,032	13,283	8,446	470	470	‡3	(‡)	594	2,335	1	18	(‡)	(‡)	....	....	....	....	....	....	(‡)	28,431	28,950	.60	1893
1894	942	18,078	8,577	706	706	‡2	(‡)	516	3,689	(‡)	40	(‡)	(‡)	2	....	....	....	....	....	(‡)	45,344	35,622	.72	1894
1895	913	18,232	8,120	1,209	1,209	‡2	(‡)	438	4,386	(‡)	44	(‡)	(‡)	4	....	....	....	....	....	(‡)	52,892	57,632	1.09	1895
1896	1,205	19,379	23,941	10,020	1,253	‡2	(‡)	361	4,661	(‡)	114	1	(‡)	3	....	....	....	....	....	(‡)	60,470	60,874	.86	1896
1897	1,279	17,983	21,561	13,090	1,903	(‡)	(‡)	285	4,122	(‡)	72	66	(‡)	4	....	....	....	....	....	(‡)	55,366	44,193	.80	1897
1898	1,205	14,743	18,739	13,615	2,257	‡5	(‡)	294	3,743	(‡)	76	666	....	6	....	....	....	....	....	(‡)	57,071	64,604	1.13	1898
1899	1,321	13,054	21,142	13,911	2,642	‡15	(‡)	340	4,874	(‡)	76	836	....	6	(‡)	....	....	....	....	(‡)	62,621	75,989	1.19	1899
1900	1,301	13,258	22,363	16,196	4,225	‡32	(‡)	317	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	1900
1901	1,207	12,625	21,648	14,177	8,757	‡137	(‡)	461	5,757	(‡)	179	4,394	10	5	(‡)	....	....	....	....	1	69,389	66,417	.96	1901
1902	1,120	12,064	21,014	13,513	15,384	‡185	(‡)	397	7,481	(‡)	332	18,084	37	6	(‡)	549	....	....	....	1	88,767	71,179	.80	1902
1903	1,163	11,366	20,480	12,900	24,382	‡554	(‡)	484	9,186	....	932	17,966	139	9	(‡)	918	....	....	....	3	100,461	94,694	.94	1903
1904	1,113	11,126	18,877	12,645	29,649	‡998	(‡)	501	11,339	....	4,251	22,241	1,367	12	(‡)	2,959	....	....	....	3	117,081	101,175	.86	1904
1905	1,118	10,437	16,347	11,578	33,428	‡1,217	(‡)	276	10,964	181	‡12,014	28,136	(‡)	5	(‡)	8,910	....	....	....	3	134,717	84,157	.62	1905
1906	1,243	10,257	14,788	10,121	33,099	‡1,214	(‡)	238	7,674	4,397	‡21,718	12,566	(‡)	7	(‡)	9,077	....	....	....	3	126,494	92,445	.73	1906
1907	1,212	10,000	12,207	9,095	39,748	‡821	(‡)	232	5,128	24,282	2,410	12,323	43,624	9	(‡)	5,000	....	....	....	4	166,096	120,107	.72	1907
1908	1,160	9,424	10,859	9,523	44,855	‡38	....	280	3,283	33,686	1,801	11,207	45,799	18	(‡)	5,789	....	....	....	15	178,527	129,079	.72	1908
1909	1,135	9,299	10,633	10,745	55,472	‡39	....	311	2,296	30,898	1,264	9,534	47,859	20	(‡)	3,060	....	....	....	6	183,171	128,329	.70	1909
1910	1,054	8,795	9,916	11,753	73,011	‡69	....	240	2,160	38,143	1,128	8,899	62,029	115	(‡)	6,841	....	....	....	4	209,557	127,900	.61	1910
1911	953	8,248	8,817	9,796	81,134	472	....	227	1,695	31,317	1,279	9,526	56,069	187	(‡)	10,721	....	....	....	5	220,449	134,046	.61	1911
1912	874	7,838	8,969	12,129	87,269	484	....	196	970	23,602	1,693	11,736	51,437	1,572	(‡)	9,263	....	....	....	4	222,935	164,213	.74	1912
1913	948	7,917	8,781	11,657	97,758	525	....	223	1,396	21,920	3,104	20,068	73,632	3,660	(‡)	12,499	(‡)	....	....	11	248,466	237,121	.95	1913
1914	939	8,170	9,680	9,765	90,675	437	....	208	876	19,042	2,823	24,943	97,916	4,246	(‡)	14,309	....	....	....	14	265,763	214,125	.81	1914
1915	888	7,838	9,761	9,765	90,952	1,202	....	197	769	17,714	8,738	27,645	107,072	6,234	(‡)	18,192	....	....	....	8	300,767	330,900	1.10	1916
1916	874	7,753	8,479	8,379	93,878	3,088	....	121	760	16,777	35,536	32,413	107,508	8,978	(‡)	11,392	....	45	....	10	335,316	522,635	1.56	1917
1917	849	7,751	7,785	7,867	97,532	4,368	8	143	878	13,366	46,461	38,750	103,347	12,596	(‡)	16,043	....	100	....	8	355,928	703,944	1.98	1918
1918	809	7,408	7,736	8,327	101,183	9,278	15	121	972	11,960	33,048	79,366	86,911	13,172	(‡)	17,188	(‡)	69	....	12	378,367	760,266	2.01	1919
1919	851	8,137	7,736	8,327	101,183	9,278	15	121	972	11,960	33,048	79,366	86,911	13,172	(‡)	17,188	(‡)	90	....	12	378,367	760,266	2.01	1919
1920	906	7,438	7,400	8,249	103,377	9,738	14	111	945	10,774	39,005	96,868	106,206	16,831	....	35,714	(‡)	340	(‡)	13	442,929	1,360,745	3.07	1920
1921	988	7,418	7,336	7,832	112,600	9,013	12	108	1,158	10,043	26,456	106,166	114,634	19,333	....	27,103	(‡)	1,609	10,473	12	472,183	814,746	1.73	1921
1922	1,000	7,425	6,781	7,021	138,408	8,973	10	97	1,087	9,383	31,766	118,654	149,571	26,715	....	35,376	(‡)	2,449	12,712	13	557,531	967,131	1.73	1922
1923	1,250	7,609	7,085	6,388	265,876	8,069	8	86	1,043	8,707	28,250	131,025	160,929	44,735	(‡)	24,919	(‡)	2,782	16,610	18	713,940	1,022,689	1.44	1923
1924	1,440	7,486	6,811	5,930	226,933	7,407	10	445	935	5,081	24,836	134,622	173,538	39,178	....	21,274	1,660	4,015	17,398	12	783,743	1,284,960	1.64	1924
1925	1,695	8,007	7,212	5,763	232,492	6,759	24	1,256	829	7,463	36,567	144,616	179,196	25,776	94	19,201	1,660	7,727	58,332	8	770,874	1,447,760	1.88	1925
1926	1,966	8,961	7,272	6,946	224,673	6,274	43	2,766	808	7,990	41,068	217,389	277,775	21,307	439	22,818	1,226	5,058	40,005	7	901,129	1,172,830	1.30	1926
1927	2,242	9,626	7,093	6,023	231,196	6,719	60	2,671	1,052	6,464	34,596	257,320	249,857	21,461	594	21,847	943	4,015	32,096	6	901,474	1,054,880	1.17	1928
1928	2,603	9,966	7,015	5,661	231,811	7,775	46	2,358	981	6,319	42,813	296,876	255,004	19,314	4,528	20,554	1,830	3,980	24,917	7	1,007,323	1,172,830	1.27	1929
1929	3,377	11,820	6,743	5,514	227,254	7,389	21	1,666	994	5,736	41,638	290,467	216,486	17,868	3,911	23,272	10,189	3,349	19,702	7	898,011	1,070,200	1.19	1930
1930	3,647	12,893	6,496	4,472	188,830	6,456	6	1,545	840	5,039	37,018	332,437	180,574	14,834	3,789	21,804	15,227	2,830	14,791	....	851,074	553,630	.65	1931
1931	3,508	13,412	5,644	3,876	178,128	6,287	5	1,136	806	4,673	34,848	312,478	153,244	13,418	6,910	21,807	12,455	2,457	12,051	....	785,143	683,074	.87	1932
1932	3,174	12,639	4,264	3,811	175,085	4,605	6	947	728	4,227	41,942	396,463	181,506	11,196	7,851	24,636	14,074	2,122	11,608	....	898,874	539,324	.60	1933
Total ..	85,447	878,375	563,071	384,369	4,037,738	129,293	320	29,528	120,136	412,246	703,590	3,409,153	3,513,518	374,701	28,120	512,405	58,768	45,828	396,722	252	15,683,574	19,447,922	$1.24	Total

*1889-1899, Missouri; 1900-1906, Michigan and Missouri; 1907-1911, Michigan, Missouri and Utah; 1912, 1917, 1918, Alaska and Michigan; 1913 and 1919, Alaska, Michigan, Missouri and New Mexico; 1914-1916, Alaska, Michigan and Missouri; 1920, Alaska, Arkansas, Missouri, New Mexico and Utah; 1921-1923, Alaska, Missouri and New Mexico; 1924-1930, Alaska and Utah. †New York included with Pennsylvania. ‡Tennessee included with Kentucky, 1883 to 1907, inclusive. §Less than 500 bbls. (See Mineral Resources, 1916, pt. 2, pp. 684-685.) ‖Included under "Other." ¶Oklahoma included with Kansas in 1905 and 1906.

Late Fields

OKLAHOMA

Empire Oil & Refining Co.'s No. 1 Myers, SW SE NE Section 31-7-8, Seminole County, flowed 2,216 bbls. the first day and 2,114 bbls. the second day, with no water, from Wilcox sand at 4,105-08 feet. The Stanolind Oil & Gas Co. has an offset to this well making 2,100 bbls. a day from Wilcox sand, but the Wilcox sand discovery well of Winona Oil Co. and Jarvis & Holm has gone to water. It is also an offset.

Pipe Line Construction

PIPE ORDERS

Standard Oil Co. of California has placed orders for 1,600 tons of 16, 18 and 22-inch steel pipe with the National Tube Co., a subsidiary of the United States Steel Corp., and 750 tons of 12¾-inch pipe with the Pittsburgh Steel Co. California Standard is also inquiring for from 2,500 to 4,800 tons of steel plates for 12 tanks and 1,500 tons of plates for a 500,000-bbl. storage tank at Richmond, Calif.

Richfield Oil Co. has awarded a contract for nine storage tanks in New York and Rhode Island to the Chicago Bridge & Iron Works, which will take about 1,200 tons of steel plates. An inquiry is in the market from Shell Oil interests for 5,000 tons of plates for storage tanks in the West Indies. Standard Oil Co. of New Jersey is in the market for 1,000 tons of steel for an oil tank to be built in Sumatra.

NEW PUMPING UNIT

Pure Oil Pipe Line Co. is building a new central pumping station on the McCann lease in Section 7, Greendale Township, Midland County, Michigan, similar to one in which a new method of pumping a large number of wells proved successful in the Van Pool in Texas. Fourteen wells will be connected to a 60-horsepower engine and compressor.

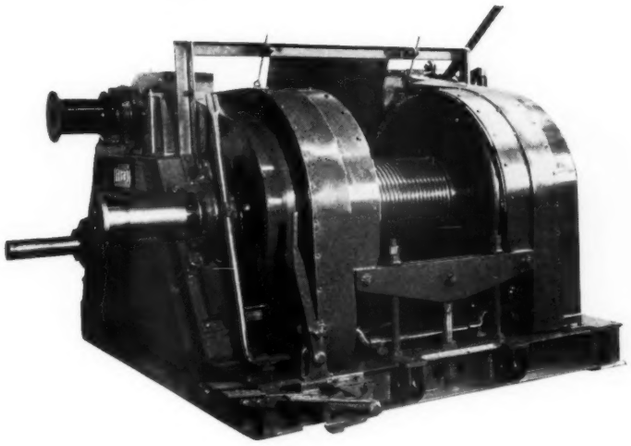
TORONTO LINE RUNS CRUDE

COUTTS, Alberta, Aug. 25.—The Toronto Pipe Line Co., subsidiary of the British American Oil Co., has completed its pipe line from the Cut Bank Field and has started running crude. The initial tariff as posted was 22½ cents a barrel, being 5 cents under the total tariff from transporting crude from the field to Alberta through the International Pipe Line Co. line and the Illinois Pipe Line Co.'s carrier. The tariff on the latter from the field to Sunburst is 22½ cents while transportation on to Coutts through the Illinois Pipe Line Co.'s line is 5 cents a barrel.

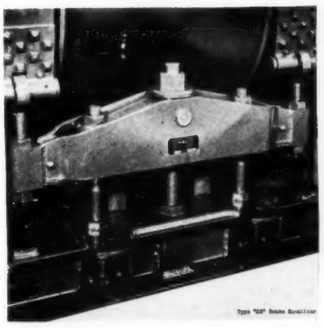
The International Pipe Line Co.'s line was completed about a month ago. It is a 4-inch line from the Cut Bank Field to Sunburst, Mont., a distance of 27 miles, tying into the company's 14 miles of gathering lines at the Santa Rita wells in the north end of the field. The gathering system runs south to the town of Cut Bank, and will be extended farther south as additional production is developed. The gathering system was originally laid by the Santa Rita Oil & Gas Co. as a pipe line from the field to loading racks at Cut Bank, but was purchased by the International company several months ago.

The Toronto Pipe Line Co.'s line was completed early in August and extends 30 miles from the Cut Bank Field direct to Coutts. It is a 6-inch line laid by Ford, Bacon & Davis, Inc., contractors of New York. The line cost approximately $300,000 and includes 12 miles of 4-inch gathering line through the Cut Bank Field and a tank farm and pump station on the Seeba lease in Section 20-34n-6w, 7 miles north of the town of Cut Bank. It forms a crude carrier from the field to the British American Oil Co. (formerly Northwest Stellarene) refinery at Coutts. The Coutts plant has a capacity of 2,000 bbls. a day, while from Coutts crude oil will also be transshipped to the British American refinery at Moose Jaw.

EMSCO



"PSG" DRAWWORKS with Type "A" Brake Equalizer



Type "CB" Brake Equalizer on "PSG" DRAWWORKS

EMSCO TYPE "PSG" UNITARY DRAW WORKS

The Emsco Type PSG combines the capacity of the Conventional Draw Works with the ease in transportation of the portable unit.

It is entirely self contained and is equally adaptable for driving from steam, gas or Diesel engine or from electric motor. This adaptability, plus its ease in installing and handling makes the Emsco Type "PSG" Unitary Draw Works especially suited for exploration work or for wildcatting. Complete details will be gladly furnished on request.

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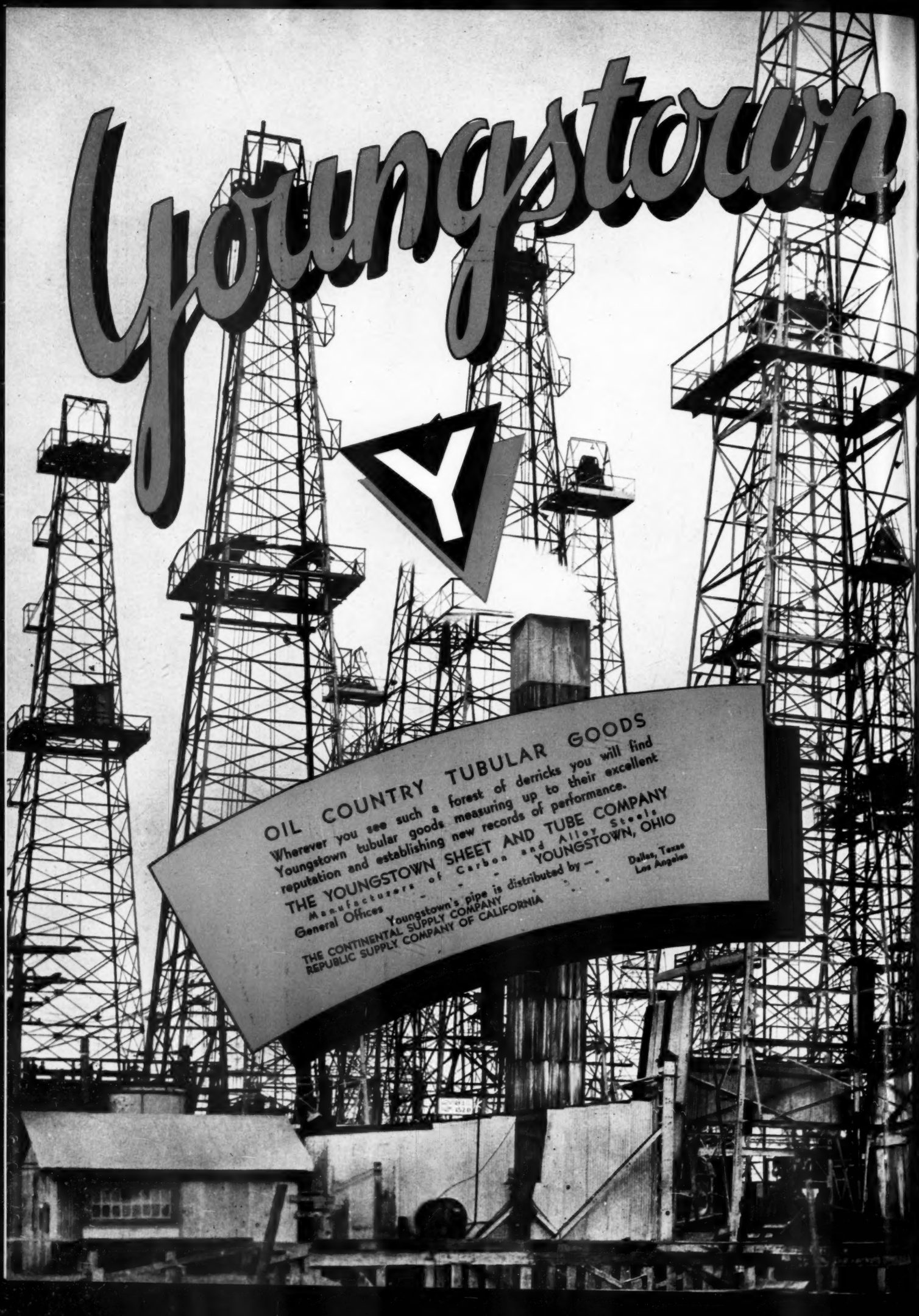
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Government Attempting Too Much Declares President Axtell J. Byles

AXTELL J. BYLES

By AXTELL J. BYLES*

To some who have gone forth from here, this valley is hallowed by sacred memories, and these hills symbolize the thought of the psalmist when he said: "I will lift up mine eyes unto the hills from whence cometh my help."

On this occasion there passes, in memories review, the long line of heroic as well as tragic figures who blazed the way for an industry which, within the span of living men, has become the second greatest in the nation, encircled the globe and made possible a new civilization.

Titusville, so far as the oil industry is concerned, may be likened to the little school house where the rudiments of education were acquired by our forefathers. From this school many of its sons and daughters have graduated and gone forth through more than two generations into the various states of the Union and into foreign lands in quest of oil, moving in association with the great legion, of which they are now but a small part, out into the world or university of experience in the development of this industry.

Individualism the Foundation

The pioneers to whom today we pay tribute were rugged individualists. Those of us who knew and loved them would deeply resent the application of that term in an approbrious sense. What else, if not rugged individualism, could have ignored ease, risked life and fortune, taken victory and defeat with stoic courage, wrested from an unwilling and hostile nature one of her most dangerous and priceless possessions and subdued and harnessed it in the service of mankind.

Upon the rock of rugged individualism this nation was founded. What, after all, was the reason for seeking out this new land, if not to escape the limitations of an older civilization and free men's minds and spirits, as well as their hands, to take advantage of every opportunity to build freer and fuller lives.

Least Governed Best Governed

These rugged individualists were not different from their compatriots engaged in agriculture and commerce and industry. It never occurred to any of them that the Government owed them a living. All they expected from their Government was such protection as was necessary to enable them to earn their own living and to be assured that property once acquired by honest labor, skill, and saving was safe for their enjoyment, their disposition, and the protection of those for whom they were responsible. They conducted their affairs and ordered their lives with literal belief in the Declaration of Independence—with the belief that the purpose of government was to protect life, liberty, and make possible the pursuit of happiness. They were thrifty and tax-conscious, jealous of the credit of the state and of encroachment upon their liberties by the state. They believed in the Jeffersonian maxim that people least governed are best governed. Along these lines a virile people, in a rich land, built a great nation. Science and invention speeded them on their way.

The wealth and power of a mechanized age, however, brought complications in life and in government. The hard life became soft, ease engendered greed and abuse of privilege until, in tribulation, one wonders whether there is not something of a parallel between our present experience and that referred to by Lincoln in his second inaugural when he said: "Until every drop of blood drawn with the lash shall be paid by another drawn by the sword."

Federal Credit Our Bulwark

Whether or not we accept this rather mystic theory of retribution, we are likely to agree with Lincoln that this nation cannot exist half slave and half free. That democracy and autocracy or bureaucracy cannot live side by side or long breathe the same air. That no matter how wise or necessary drastic intervention and governmental control over the lives and business activities of our people may have been in the day of crisis, we cannot recover from the effects of the latter so long as the former exists. We appeal to the administration to turn as soon as may be from an emergency government, which is necessarily largely one of discretion and fiat, and return to one of law—so that men may plan and order their affairs with assurance and confidence. It is my conviction that only in this way can the appalling strain upon the Federal credit be relieved and private investment and initiative take up the load which it alone is able long to carry. Armed conflict between nations is a tragic and terrible thing, but the worst thing which can befall a people is anarchy. Parts of Europe are today so threatened. Our bulwark against chaos is the Federal credit—at all cost it must be kept secure.

Supply vs. Price and Service

Judgments differ as to the policy which should be adopted by and for the petroleum industry upon the expiration of the National Industrial Recovery Act next year. Any present expression must, therefore, be largely one of individual opinion. Some of us do not believe in fairies or panaceas or economic magic, or in guaranteed profits or in price-fixing, or think that a series of rules embodying in one form or another the "Thou shalt's" and the "Thou shalt not's" will prove any more successful when applied to an industry such as ours than they did when applied to the liquor traffic. A cynic once said that rules are made to be broken by men of brains. Unfortunately, our experience in the oil industry during the past year has indicated that most of our rules are broken by the unco-operative to their own profit and to the detriment of those who desire to co-operate and do obey the rules. The game cannot be played that way. No government and no industry can afford to issue edicts or make rules which are flouted.

We must recognize petroleum as an essential and irreplaceable natural resource. It is burdened with a public interest in so far as prevention of waste, both physical and economic, is concerned. Otherwise, it is not unlike other industries.

An increasing number of people are realizing that it is impossible for a committee, or board, or authority to regulate, or mandate, or regiment the complex and endless operations of so vast an undertaking. If there were a single ownership, it could not be done efficiently. With multitudinous ownership and competing interests, the task is insuperable. This suggests that, beyond the supply of raw material, the hand of government should be removed and, in the public interest, competition as to price and quality and service begin.

Supply-and-Demand Balance

Some of us are still simple enough to believe that economic laws are inexorable. That if too much crude oil is not produced, too much gasoline and other products cannot be. That, as a result of such a balance, price will take care of itself. That the public's interest, both in conservation and price, may be safeguarded through governmental control of the volume of crude oil allowed to be produced. Most of us are agreed that failure to balance supply with consumer demand renders futile every other effort at stabilization. We cannot take the second or the fifth or the tenth step until we have

(Continued on Page 37)

*At presentation of Drake Well Memorial Park to Commonwealth of Pennsylvania.

Analysis of Oil Control and Production Under the National Recovery Act

By C. B. AMES
Chairman of the Board, The Texas Co.*

This is an appropriate time and place to record the debt of the petroleum industry to the engineer and the scientist. Scholarly research conducted by the schools, by the engineers, by the chemists, and by the industry, has resulted in rapid progress in the technique of production and refining. Wells are being drilled to a depth of more than 2 miles—a thing regarded as impossible only a few years ago. Oil deposits are being located by the seismograph and other scientific methods instead of by intuition. The engineer and the chemist have devised improvements in machinery and methods by which the output of gasoline per barrel of crude has been almost doubled, and further progress is being made.

Unfortunately, our law has not kept pace with our scientific progress and we are now passing through a period of legislative experimentation, a part of which is my subject.

The petroleum code was approved by the President one year ago and a fair examination of its operation may be of some practical value in considering the further development of the legislative program. It will be my endeavor to point out the elements of strength and the elements of weakness under the code.

Production

For many years it has been recognized that legislative control of crude oil production is necessary. For 40 years states have been legislating to prevent physical waste and for 20 years there has been state legislation prohibiting economic waste. This species of legislation has grown rapidly in recent years.

One of the greatest difficulties in the conservation program has been in securing co-operation among the oil producing states, and the passage of the National Industrial Recovery Act afforded the first opportunity for a comprehensive national program. The code, however, does not, and cannot, confer power to control production within the states, and no such power now exists under any act of Congress. In Kansas, Oklahoma and Texas there are state laws limiting production to reasonable market demand and creating commissions to administer the law. The other states have no such statutes. Notwithstanding the intelligent and diligent efforts of the petroleum administrator, production since the code became effective last September has exceeded the estimated requirements and the allocations by about 40,000,000 bbls.

This method of dealing with production under the code is based on the experience of the industry, the intelligent activities of the Federal Oil Conservation Board, and the efforts which have been made in the states to control the situation, and this activity has been of outstanding benefit as is illustrated by the fact that notwithstanding the defects in the law and the difficulties in the administration, the price of 36.0 gravity Mid-Continent crude oil advanced from 25 cents per barrel in the spring of 1933 to $1 per barrel in September, 1933. This price advance obviously was in anticipation of effective control, pursuant to the code, and while this control has not been effective the price has continued in effect to the present time.

Refining

When the code was originally drafted it did not provide for control of refining operations, both because the industry had had no experience in such control and because it was believed that effective production control would render refining control unnecessary. Overproduction, "hot oil" and "hot" gasoline, however, resulted in prices for refined products out of line with the price of crude oil, and in an effort to stabilize the business on the basis of $1 crude a refining section has been added to the code, which attempts to confer upon the petroleum administrator similar powers over refinery runs

(Continued on Next Page)

*Before fourth annual economic council for engineers, Stevens Institute of Technology, Johnsonburg, N. J.

Analysis of Oil Control and Production Under N.R.A.

(Continued from Preceding Page)

as those applicable to crude production. The administrator is authorized to prescribe the total quantity of gasoline to be produced from time to time and this is allocated as between areas and refining regions, where in turn it is allocated as between individual refiners, this allocation being made initially by the industry itself, subject to appeal to Washington.

This refinery program has been supplemented by two agreements, approved by the administrator, which are possible under the National Industrial Recovery Act, notwithstanding the antitrust law. Under one of these agreements many of the small refiners in East Texas have agreed to accept their gasoline allocations and not to produce or purchase illegal oil, while some of the larger companies have agreed to purchase the surplus gasoline production of these refiners. The other agreement is within the state of California and its purpose is to make the code effective in that state which has no law under which production can be controlled.

It is hoped that this refinery section of the code and these two agreements will aid in stabilizing the industry, but this program is, at best, a makeshift— a temporary expedient and cannot be regarded as a permanent solution. No bureau in Washington and no committee of the industry can be long allowed to dictate to every refiner how much gasoline he may produce. The right of an individual to conduct a lawful business in a lawful way without control, either by his competitors or by a Washington bureau, is too fundamental to be long relinquished.

It must also be borne in mind that refinery control and such agreements as those mentioned would be entirely unnecessary if government would discharge its duty of conserving the crude oil supply.

Marketing

Prior to the adoption of the National Industrial Recovery Act, the industry had submitted to the Federal Trade Commission a code of fair competition for the marketing branch. This was modified by the commission in various particulars and promulgated in 1929. This code removed some of the evil practices in marketing. It was the basis for the marketing section of the existing code under NIRA. This section contains 31 rules and has been subjected to numerous changes. It has been amended, modified and interpreted so often that there is probably no one who knows for certain what it means. Theoretically, it is the law, and all of the amendments, modifications and interpretations are, likewise, the law. Since the code was promulgated, there have been at least 175 orders, regulations and resolutions, and 72 interpretations and modifications, most of which relate to the marketing section. There are probably 350,000 to 400,000 gasoline outlets in the United States, each one of which theoretically is bound by this code and all of its modifications, amendments and interpretations. A violation subjects the vendor to the possibility of fine and imprisonment. We thus have a body of so-called law, applicable in every hamlet of the United States, which is being altered in some respect practically every day.

These daily modifications, interpretations, alterations or cancellations are promulgated by the administrator and released to the newspapers. They consist of one or more typewritten sheets of paper, most of which make some change in the law and become effective usually when released to the press. These changes in the law are not made by Congress. While they are presumed to be the law regulating interstate commerce under the constitution of the United States, no Congressman ever saw them before they were promulgated. No problem of the industry is so simple and none so complex that the administrative bureau in Washington will not undertake to solve it by this system of leaflet law and press release. Such slight advantages as the marketing code ever had are being rapidly buried beneath these accumulating drifts of typewritten paper.

This criticism is not directed against the administrator. It is against the system. In fact, most of these modifications, interpretations, alterations and cancellations are recommended by the Planning and Coordination Committee which is in Washington to represent the industry.

It is likewise to be borne in mind that most of the evils in marketing operations are directly caused by the overproduction of crude, and that if government will discharge its duty of conserving the crude supply there will be no necessity for a code of marketing practices, and no reason for suspension of the antitrust laws as they affect marketing operations.

Labor

The remarkable thing about labor is that the law has been ignored by the administration. When the code was presented by the industry in June, 1933, it contained a provision for collective bargaining, as required by the act of Congress, but it did not contain wage schedules. This was on the assumption that hours and wages and working conditions would be fixed by the employer and the employe through collective bargaining. General Johnson, however, declined to receive the code unless provisions relating to maximum hours and minimum wages for common labor were inserted. This was done, but the hours and wages were the result of bargaining between the industry and the administrator and not between employer and employe. After the code was promulgated, the President, as I have already stated, designated the Secretary of the Interior as the administrator, and he in turn appointed a Labor Policy Board. The code provided for fixing reasonable differentials between the rates for common labor and skilled labor, and some of us assumed that this would be done by collective bargaining between the employer and the employe. The Labor Policy Board, however, has pursued the original policy of preventing collective bargaining, by prescribing wages for skilled labor based on a theory which is in violation of the code. This board has also encouraged and supported the efforts of the unions to organize the industry and has discouraged any other representation plan which employers and employes might agree upon. Its activities on the whole have been harmful, and if labor troubles arise within the petroleum industry this board will be, at least, partly responsible.

Bureaucratic Control

In the administration of the code, four bureaus have been set up in Washington —three within the government and one within the industry. In addition to the Labor Policy Board, which has already been mentioned, Secretary Ickes has appointed a Petroleum Administrative Board and a Division of Investigation. The code provides for the appointment of a Planning and Coordination Committee, which now consists of 21 members, selected by the President from nominations made by the industry and three representatives of the Government.

Congress has imposed a special tax on the industry to support the administration of the code which will yield about $1,500,000 per annum. The Planning and Coordination Committee has numerous employes in Washington and numerous committees all over the United States operating at an expense to the industry, in addition to the tax above mentioned, of about $1,000,000 per annum.

Hundreds, if not thousands, of complaints from this, that or the other source, come to Washington and are considered by these bureaus. The industry is called upon to answer questionnaire after questionnaire relating to various matters of more or less importance, some of which can only be answered at considerable expense. In the expense of administration I have made no estimate of the amount of time required by the individual units in answering questionnaires, nor of the amount of time devoted by important executives in diligent efforts to support the code.

Those who are engaged in these activities are painfully conscious of the vast machine which they are constructing, but they are caught in the meshes of a system from which, under this code, they see no way of drawing back.

A Suggestion for Future

A plan should be developed for the effective conservation of our crude oil supply and this plan should be one squaring with the constitution of the United States. This can be accomplished through the medium of a compact between the Federal Government and the principal oil producing states.

The chief value of the code has been its effect upon production of crude oil. Any incidental benefit growing out of the other provisions has been more than offset by the disadvantages, and after all, the control of crude oil production is the beginning and the end of the duty of government regarding petroleum. There is one reason and only one sound reason why goverment should control crude oil production and that is, the necessity of conserving this limited supply for the good of the people as a whole. The industry, no matter how skillful it may be, is unable to conserve the supply because of the nature and consequence of our legal theory of title. The surface owner has the right to drill for oil and reduce it to possession, notwithstanding the fact that the country does not need it and that when he does so he drains oil from his neighbor's land. A majority of the surface owners may prefer to preserve their oil for future use, but they are unable to do so unless every surface owner does likewise. As this rule of law prevents the industry from conserving the supply it is necessary for government to intervene.

Notwithstanding all the progress that has been made in conservation, oil, greatly limited as to supply, is displacing coal in many places where coal can be conveniently used and this purely on a low price basis. This is not conservation.

In the United States at least a billion cubic feet of gas is being daily blown into the air—enough to supply the domestic requirements of 5,000,000 domestic consumers. This is not conservation.

Our petroleum engineers tell us that under our wasteful methods of extraction enormous quantities of oil are left in the ground, and that we could more than double our ultimate production from a given pool by scientfic methods of extraction. The intelligent units in the industry are unable to apply scientific methods because of our defective laws. Scientific methods of extraction can only be applied to a pool when it is treated as a unit, and yet we allow every surface owner to pursue his own methods, no matter how reckless or wasteful they may be. This is not conservation.

As the law renders the intelligent producer helpless and as the law can only be amended by government, it is the duty of government to correct the law. For many years this destructive policy has continued. The evil has been known to the industry; it has been declared by the Federal Oil Conservation Board; it has been known to the states, but it has not been corrected.

This defect in the law has been recognized by the President and by the Secretary of the Interior, who requested the Congress at the last session to pass an act conferring power upon the Secretary of the Interior to prescribe the total production of the United States, to allocate this production between the states, to prohibit the movement in interstate commerce of any production in excess of that prescribed, to prohibit the movement in interstate commerce of the refined products of such excess production, and to make direct allocations to individual pools and producers if this was not done by the respective states. This bill failed of passage but the House of Representatives appointed a committee to study the problem and report back to Congress. This committee is now engaged in its study.

Whether Congress has the power to control production, either by direct action or by the indirect method of this bill, is open to grave doubt. It has been frequently decided by the Supreme Court that production is not interstate commerce and therefore cannot be regulated by Congress under the commerce clause of the consitution. As Congress cannot directly control production, a serious question exists as to whether it can do so indirectly by denying the privilege of interstate transportation to petroleum and its products lawfully produced under the laws of a state, even though in excess of a Federal allocation. Those who believe such a statute to be valid point out the existing waste, the failure of the state to solve the problem, the necessity of petroleum products for the army, the navy, and the air fleet, and claim that Congress has the right to fix a quota for each state and to prohibit interstate movement to oil produced in excess of quota. Those who oppose the act point to the decisions of the Supreme Court holding that production is not interstate commerce, and argue that if such a statute would be valid as applied to petroleum, then a similar statute might apply to cotton, or corn, or wheat, or any other commodity and thus Congress, under the commerce clause, would have the power to control everything that moves across state lines.

On the other hand, it is settled by the decisions of the Supreme Court that a state can, in the exercise of its police power, limit production of crude oil to the reasonable market demand. Approximately 80 per cent of our crude oil is produced by California, Oklahoma and Texas. If these three states could effectively agree upon a program it would go a long way towards solving the problem and, if in addition to them, Kansas, Louisiana, New Mexico and Michigan, were added, the problem would be completely solved.

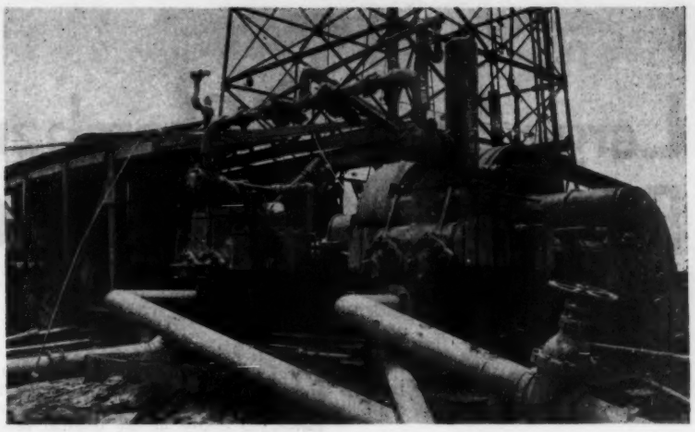
As far back as 1926 the Federal Oil Conservation Board, after making an elaborate study of the problem, suggested that an agreement be made among the principal oil producing states to control their production in order to secure adequate conservation. It was recognized that no one state can regulate its production in utter disregard of other states, because no matter how effectively one state exercises control if other states overproduce price destruction results and the state which is restricting its output, while conserving its supply is penalizing its own producers. Over a generation or two this might not be objectionable but those producers who are in need of money to pay their debts will not consent to such a plan, nor will the state force it on them.

The constitution of the United States authorizes states to make agreements with each other, subject to the approval of Congress, and there are numerous interstate agreements or compacts. Thus, by pursuing strictly constitutional methods Congress, in co-operation with the legislatures of a few states, can discharge the duty which rests upon government of conserving our crude supply by means of an interstate compact. Under such a plan a commission would naturally be set up, composed of representatives of the contracting states and of the Federal Government, which would be charged with the duty of formulating a program of conservation and each state would, within its own borders, enforce the program.

Such a plan was presented to Congress by the Oil States Advisory Committee a few years ago and received a sympathetic hearing but failed of passage. The problem since has grown more acute. The situation is better understood and there are no insuperable difficulties preventing its accomplishment.

The congressional committee now studying this problem has an opportunity of rendering a remarkable public service and it is hoped that it will be able to recommend a course of action which will conserve our oil supply and will, at the same time, be an enormous improvement upon the existing cumbersome code under which the industry is now endeavoring to operate.

Diesel Powered Rotary Drilled Despite Drought



Giant slush pumps, the one to the left with special high pressure fluid end, used at Cleveland County, Oklahoma, deep test

Because of the exceptionally hot and dry summer in the Mid-Continent oil fields many drilling operations have been shut down because of lack of water for steam and slush-pit make-up purposes, but one rig in Cleveland County, near Norman, Okla., drilling on Phillips Petroleum Co.'s No. 1 B. Baker, C SE NW Section 34-10-10w, reported at a total depth of 7,432 feet in Simpson dolomite formation on August 4, has proved a notable exception to the rule because it is powered with Diesel engines.

This well was started May 13, 1934, with 17-inch hole and set 256 feet of 15½-inch pipe for the surface string, reducing to 12¼-inch hole that was carried to a total depth of 5,870 feet where a string of 9⅝-inch 42-pound casing was set and cemented. Only one Diesel engine was needed to handle this long string of heavy casing with eight lines strung in the derrick.

After the 9⅝-inch string of casing was set the hole was reduced to 8⅝-inch and is drilling at 7,432 feet with 4½-inch drill pipe. The objective is the Wilcox sand and it is hoped it will be picked up soon as they are now in Simpson dolomite.

This outfit is made up of a 26 cross-over crown block; 66-inch traveling block; 8-inch spring casing hook; 6-inch swivel, fully enclosed 27½ rotary table; a three-shaft, four-speed 26-inch drum drawworks fitted with a Parkersburg "Hydromatic" brake and other accessories moved from one of the contractor's steam powered rigs. All of the equipment listed above except the brake is of National Supply Co. "Ideal" make and the whole is mounted in a Wertzberger 122-foot high tubular leg derrick set upon concrete foundations with circular cemented cellar of the same type used by Phillips Petroleum Co. in the river bottom locations in the Oklahoma City Field. Sketch and description of these cellars and foundations were given in an article by the writer in The Oil and Gas Journal of July 10, 1930.

Reproduction of photographs taken at the B. Baker location together with a sketch of the layout accompany this article and give a good idea of the equipment used and the manner in which it is assembled.

Diesel Engines Used

With a heavy duty derrick and other equipment suitable for deep drilling available at the location it was decided to power the outfit with two 350-horsepower Superior eight-cylinder, four-cycle full Diesel engines manufactured by the National Superior Co., Springfield, Ohio, and sold through the National Supply Co.

These engines have 9-inch diameter by 12-inch stroke cylinders and are conservatively rated at 350 horsepower when running at 600 revolutions per minute. The compression pressure is 400 pounds per square inch and the firing pressure 600 pounds. The actual power these engines ca ndevelop at 600 r.p.m. is stated by the manufacturer to be 440 horsepower and the engines have an operating speed range from 250 to 600 r.p.m. The engines are started by compressed air admitted to each cylinder at about 150 pounds pressure, and secured from a small gasoline engine driven air compressor.

One feature of this type engine is the higher torque developed in the crankshaft when the engines are running at lower speeds. This is accomplished by regulating the amount of fuel admitted to the combustion chamber by manipulation of the throttle on the fuel valve. In this way any desired amount of fuel can be admitted at any operating speed and a high torque developed in the crankshaft transmitted to the gears. This advantage will be appreciated by drilling contractors for it assures ample power at the slower speed ranges which permits of steady, powerful pulls sometimes necessary to release pipe in the hole or for lifting. and handling heavy loads, such as long strings of casing.

These engines weigh approximately 27,000 pounds apiece but are so designed and assembled upon "H" steel beams that they can be moved to and from location on truck and trailer.

The two engines are set end to end with the center line of the cylinders parallel to the drum shaft in the drawworks and between the engines and drawworks the reverse clutch mechanism for delivering power to the derrick floor and to the slush pumps is located.

The transmission equipment is designed by the National Supply Co. and consists of an Ideal A-700 reverse gear and countershaft. Power from engine shaft to gear shaft is transmitted by a Dayton cog belt drive. This transmission assembly is provided with a 7½-inch shaft passing through gears which are of the planetary type with spur instead of spiral bevel gears in the reverse mechanism. All bearings are Timken or Hyatt make, and seals and rings are used to prevent oil leakage.

Driving Mechanism

By referring to the sketch it will be noted that the two National Supply Co. Ideal 7¼"x14" power driven pumps are mounted at the right of the Diesel engines and the pump countershaft carrying two jaw clutches at the right of the reverse gear mechanism, and is so designed that the pumps can be used alone or together. Dayton "V" belt drives are used between pump countershaft and the pump pulley.

This arrangement permits the driller to use the left hand Diesel engine to deliver normal power for drilling to the drawworks and rotary table, while the engine at the right drives either or both pumps.

When pulling the tools out of the hole the pump clutches are disengaged and the dental gear tooth clutch, shown to the right of the reverse clutch on the transmission shaft, is engaged connecting the shaft carrying the reverse gear mechanism and the pump countershaft.

When this hook-up is made the power of both engines may be applied to the drawworks through the reverse gear. Either engine may be used to operate the drawworks or pumps and this reduces shutdown to a minimum through any failure of the power plant. It also provides more than 700 horsepower for any operation to be performed at the rig if normal rating of the engines is taken, and actually nearly 900 horsepower if it is desired to operate the engines at their higher rating.

These National Superior Diesel engines are of the latest design and have built-in water pumps, clutches, tachometers, pyrometers and drives. The engines are mounted upon a set of heavy "H" beam skids for portability. Cooling water is furnished from a 250-bbl. bolted steel tank fitted with louvre and set alongside the rig. Outlet water from the engine has a temperature of about 130° F., while the cooling water from the tank does not exceed 85° F. when entering the engine circulating pumps. Some water is lost by evaporation during the hot summer days, during which this outfit has been operated and an average of about 66 bbls. daily make-up water is required.

For water for slush pit and engine a small gasoline driven duplex plunger pump is located on the banks of the creek and pumps water into a 1,000-bbl. bolted steel tank at the rig. From the top of this supply tank the make-up water for the cooling system for the engines is drawn while make-up water for the slush pits, amounting to about 468 bbls. per day, is also taken from the 1,000-bbl. storage tank. The total water used at the rig, including wash-down water for the derrick floor and other purposes, averages 535 bbls. daily and these quantities were secured by metering all water delivered to the stock tank from the stream. This was done to secure accurate cost data on this drilling operation and an employe of the Phillips Petroleum Co. is working on the morning tour on the rig and checks water and fuel every day.

Fuel Consumption

The fuel recommended by the builders of these engines may have either paraffin or asphalt base, with 40 to 50 SUS viscosity at 100° F.; 28 to 34 A.P.I. gravity; .01 per cent ash; .5 per cent moisture; .075 per cent carbon; 750° F. end-point and .5 per cent residue. This is regular Diesel fuel obtainable all over the oil country and at this well a total of 700 bbls. has been consumed up to August 10, or 9.2 bbls. per day, and 3.9 gallons per foot of hole drilled. The rig is operated by three eight-hour shifts.

The countershaft driven by the two Diesel engines is all 7½-inch diameter and mounted on heavy duty Hyatt self-aligning roller bearings, all supported on heavy cast pedestals. The same type pedestals are used for the pump countershaft, also carried on Hyatt bearings.

The slush pumps are of the eccentric type with Hyatt heavy duty roller bearings in all main bearing positions. One of these pumps is equipped with a cast steel fluid end tested for 6,000 pounds pressure and suitable for handling fluid into the hole against any formation pressure that might be encountered.

All auxiliary equipment is mounted on one set of skids and consists of an In-

(Continued on Page 44)

Looking along the walkway in front of the two 350 horsepower National Superior Co. Diesel engines toward slush pumps at Phillips Petroleum Co.'s No. 1 B. Baker, Cleveland County, Oklahoma

Large Cracking Chambers Forged From Steel Ingots

By EDWIN CONE

Of the many and diversified products of the American steel industry, that of heavy forgings is one of the most important. And of this classification, the heavy hollow forgings stand out preeminently. Their production involves great skill, large investment in plant equipment and the most careful supervision from the metal in the massive ingots to the completed and machined product. This is of course especially necessary in the case of hollow forged soaking or cracking drums or other high-pressure vessels for the petroleum and chemical industries, produced by this process, which involve many hazards in their use, particularly the possible loss of life.

It is the aim of this article to describe somewhat briefly the manufacture of such forgings by the Bethlehem Steel Co. in its extensive heavy forging department at its Bethlehem plant, Bethlehem, Pa., and to discuss some of the advantageous properties and their application to industry.

Start from Solid Ingot

All hollow steel forgings are made from solid ingots. These vary in size to suit the dimensions of the final product. The first step, after pouring the fluted ingot, is to transfer it, after it has sufficiently cooled, to the vicinity of a large press. It is then put in a large heating furnace where, after many hours of heating, it is brought up to the proper forging temperature. Under a 14,000-ton hydraulic press it is rounded and discards are then made. These discards are very large and are necessary to insure obtaining the best portions of the steel ingot for the product.

Reheating and upsetting, or shortening, to the form of a rounded block, preparatory to piercing or hot trepanning is the next step. The piercing operation removes the center of the original ingot metal. This prepares the steel for insertion of the first mandrel or enlarging bar on which, after repeated reheatings, it is drawn to length and to the desired inside diameter and wall thickness.

At this stage of the process the metal is in the form of a large cylinder. By suitable heating, the ends are then closed in or necked down by large presses, after the rough metal at each end has been cut off and careful measurement checks have been made to insure accurate dimensions and alignment. Careful annealing, in large gas-heated furnaces to remove forging strains and to insure the best structure, follows these operations after which physical and other tests are taken to demonstrate that the metal is up to the specified qualities and uniformity.

Machining Operations

To complete the finished product there are involved, from this stage on, various machining operations and drilling of holes, accompanied by several types of inspection. From the beginning to the end of the forging processing, all temperatures during the reheating and annealing are regulated by pyrometers both optical and other types. A complete record of every step is kept for every forging.

So much for the process in general. Whether hollow cracking drums or high pressure boilers or any other type of hollow forging are to be produced, the foregoing is the general practice. The result is a forging, solid throughout, with no seams or joints. Because the steel has been thoroughly worked during the operations and subjected to proper heat treatments, it is in the best possible physical condition to stand up under the severe stresses to which it will be put.

Upsetting and punching the block after the 108-inch ingot has been rounded up and discards taken

Removing the 108-inch ingot from the mold. The ingot weighs 427,000 pounds. Note the hot top.

An important item is the equipment involved. The various heavy presses and heating and heat-treating furnaces, which are the same as those used for heavy ordnance, are large and expensive. The heating and other operations involve large expenditures of time and unusually large apparatus for handling. Some of the newer types of furnaces are very interesting. As designed by the Bethlehem company, they have a removable car bottom, and the circulation of the air and gas as well as the pressure and temperatures are accurately regulated by automatic control apparatus.

The size of hollow drums and other forgings which can be made by the process here outlined is limited by the size of the ingot. The largest one which has been made by the Bethlehem company originated with a 427,000-pound ingot, 108 inches in diameter. This was cast in an ingot mold which itself weighed 302,000 pounds. One of the illustrations shows the mold. The casting of this mold, as well as the pouring and handling of the resulting 108-inch ingot was no easy task.

The amount of discard involved as the ingot is transformed into the cylinder or drum is an interesting total. Including the original discard from the top and bottom as well as the removal of the central portion and the loss in scaling and machining, the total in the case of the large forging mentioned above was about 197,000 pounds, leaving a net weight for the finished drum of 230,000 pounds—a loss of about 46 per cent. The finished drum in this case has an inside diameter of 72 inches, an overall length of 40 feet, and a wall thickness of 5½ inches. Wall thicknesses up to 6½ inches have been produced. Illustrations accompanying this article are from the various stages in the production of one of these oil-cracking drums.

These data alone emphasize the cost of the operation. But high quality products—materials that will meet the severest specifications—cannot be produced except at high prices. The high

Forging operation of a hollow cylinder on the 14,000-ton hydraulic press

costs referred to are warranted by the conditions which hollow forged drums of this type must meet. Large numbers of these drums are used in the oil-cracking industrial application, pressures as high or higher than in the case of the highest steam boiler are met with—from 700 to processes of refining companies. In this 800 pounds per square inch, or higher. It is suggested that in the near future these pressures will be increased up to 2,000 pounds, with an elevation in temperatures from the usual 800°, or 850°, F., to 950° F. Manifestly, if something

One of the machining operations on the hollow forged oil-cracking drum

goes wrong, beside the serious loss of life there is the destruction of valuable equipment and the loss of production.

These are the facts under normal working conditions. If something abnormal develops, such as a small amount of water getting into the system, the insurance of a large factor of safety is essential. To meet this possibility of increased pressures, there is need of large wall thicknesses obtainable from the use of hollow forgings.

Other conditions which such hollow forgings must meet include the combating of corrosion, the uneven temperature stresses between top and bottom of the drum and the removal of coke in the case of oil-cracking drums. Corrosion, particularly in handling oils, may reduce the thickness of the walls measurably each month. The ultimate result will be a wall too thin to withstand operating conditions. The thick walls of a hollow forging fully meet these conditions as well as those of uneven temperature pressures. The continuous smooth surface and funnel-shaped ends of the hollow forgings facilitate the removal of coke.

To meet these and other operating industrial conditions, the one-piece hollow forgings are fully adequate. The best type of product is necessary and the cost should be a secondary item. The cracking drum must include the following: No joints to serve as starting points for local corrosion, no seams in which leaks may originate, smooth interior surfaces and funnel-shaped ends to facilitate cleaning, walls thick and strong enough to provide needed safety factors, and costs commensurate with length of service.

Made usually of plain carbon steel under the most exacting metallurgical control, the hollow forgings for whatever use contain the best portions of the steel ingot brought to the highest possible physical properties. It has been the experience of the Bethlehem company, in the production and installation of many hundreds of these hollow drums and similar products, that not one has ever failed in service—a record which can be pointed to with eminent satisfaction.

Government Attempting Too Much Declares Byles

(Continued from Page 33)

taken the first. We have not yet succeeded in taking the first.

An Able Leader

During this period of transition and of trial and error the industry has been fortunate in having the Federal Government's responsibility placed in the hands of one of the character, courage, and intelligence possessed by the Secretary of the Interior, who honors us by his presence today.

Few men in public life have carried greater burdens and responsibilities than have been his during the past 17 months. Could the secretary devote his entire time and thought to the petroleum industry, I can think of no one who could do more for it, or in whom there would be greater confidence.

Our Hall of Fame

It is not practicable to attempt to mention a legion of persons and names occupying places in petroleum's hall of fame.

Before, however, presenting the Park to the Commonwealth, it is appropriate to mention the names of four of Titusville's citizens, three of whom are deceased, one alone surviving.

The first two are the late R. D. Fletcher and Peter Wilson who, when all else failed, furnished funds to Colonel Drake to complete his well. But for them we would not be here today. Another is the late Alma Seymour Sherman, for nearly 20 years regent of the Canadohta chapter of the Daughters of the American Revolution. It was largely due to her vision and untiring effort that the well was saved and marked, and the movement for a memorial park commenced. The last is the venerable Samuel Smith, still a resident of this city, who, 75 years ago, with another brother, aided his father, William Smith, in drilling this well.

Governor Pichot—it is my privilege, in behalf of the American Petroleum Institute, to present to you, for and in behalf of the people of the Commonwealth of Pennsylvania, the Drake Well Memorial Park.

Eastern Market Uncertain; Higher Costs Offset Gains

(Continued from Page 25)

lantic Seaboard. In the export end there were inquiries in the market for gasoline from European buyers. So far as known no sellers here participated in the business. The European idea of price was around 4 to 4¼ cents for 64-66 375 endpoint at the Gulf and most exporters here are maintaining a low for that grade at 4½ cents with a high of 4¾ cents.

Kerosene prices were steady being quoted over a price range of 5 to 5½ cents New York and 4¼ cents basis the Gulf for export.

The advances of the previous week in lubricating oils are being maintained. New business in bright stocks and steam refined stocks is not active. In the case of bright stocks, the business available is shifting to the low cold test grades due to the approach of the fall and winter season when low cold test motor oils will be required. The same situation has served to stimulate the demand for paraffin base neutral oils more of which are used for compounding during the winter season.

A chance
for the small refiner

No matter how small your operation, you can now get a licensed, fully protected cracking unit, specially designed to fit into your own refinery layout and at a cost not too hard on your pocketbook—a unit with all the tried and true Dubbs features.

We introduce ourselves, The Ralph M. Parsons Co.

For years Ralph M. Parsons himself has designed, built and operated cracking units—always legitimately licensed.

He has devised features and engineering methods that cut construction and operating costs.

Parsons-built units operate the Dubbs cracking process under Universal license, fully protected by Universal.

It will cost you nothing to find out what we can do for you.

PARSONS

THE RALPH M. PARSONS CO.
MT. VERNON, OHIO

Best Well Is Completed in West Tuleta District; Field May Be as Large as the Pettus Area

SAN ANTONIO, Tex., Aug. 27.—The completion of Leslie McKay's No. 1 Rapp and the nice showing being made by Edwin M. Jones' No. 1 Robinson, in the West Tuleta Field in the north central part of Bee County, were the featured developments in the Southwest Texas district during the week.

Leslie McKay's No. 1 Rapp topped the Pettus sand from 3,902-13 feet and is estimated good for 500 bbls. per day. This is the best well to be completed in the area and many are of the opinion the field will be as large as the original Pettus Field located to the north in the same county. The next well to be completed in the area was Edwin M. Jones' No. 1 Robinson, a north offset to the discovery well. It topped the Pettus sand at 3,900 feet and on a 17-minute drill stem test flowed pipe line oil. It is expected to make as much as McKay's No. 1 Rapp when it is completed. Casing has been cemented and it will no doubt be brought in the early part of the week.

Most of the acreage in the new area is held by independent operators, the largest leaseholder being Edwin M. Jones who holds approximately 400 acres. Shell Petroleum Corp. has a lease of 160 acres in the area, and it is reported the company will start developing the lease in the near future. Three locations were made during the week.

Hidalgo County

The outcome of Davis and Harrison's No. 1 Lula George, in the southwestern part of Hidalgo County which is making a bid for commercial gas production is still somewhat in doubt. Plug was drilled the first part of the week and during a drill stem test it blew mud and gas over the crown block. When tested through a seven-sixteenths inch tubing choke it flowed for a short while and then quit. It is believed the hole bridged over between the top of the sand at 4,109 feet and the bottom of the tubing, 154 feet off bottom of the hole at 4,135 feet. Casing was cemented at 4,090 feet. It is in Tract 13, Porcion 41, Ancient Jurisdiction of Reynosa. In the eastern part of the county, Union Sulphur Co.'s No. 2 American-Rio Grande Land & Irrigation Co. was drilling at 4,096 feet in sandy shale. It is scheduled to be drilled to at least 5,500 feet. It is in Tract 2,082, Block 86, North Capisallo district.

Webb County

In the Bruni area, or West Cole Field, of Webb County, an active drilling campaign is getting under way. Sun Oil Co. has made a location on its 80-acre tract just southeast of the Bruni townsite and is preparing to start developing its holdings immediately.

Cole Petroleum Co. has rigged up for its No. 86 Benavides, an offset to its No. 85 Benavides. Herman Brown and others have entered the Cole Field for development and have purchased all of Blocks 1 and 6 east of the Texas-Mexican Railroad tract, also Blocks 2, 3, 7 and 8 in Survey 5 of the Adams Subdivision of the Marian Arispe grant. Their first well is to be located in the center of Block 3.

In the Bruni area, United Production Corp. sold 266 acres of its holdings to Clint Murchinson. The holdings acquired included the two producing oil wells brought in in the deep sand below 3,400 feet.

San Patricio County

Petrol Corp.'s No. 1 Welder, northwest of Sinton, San Patricio County, was trying to core and test a sand from 5,405-5,435 feet logged on an electrical coring test. It is in the Dela Garza Survey. In the eastern part of the county, Beasley and Maxwell's No. 1 Sadler, in Block 1, Section 32, T. Perez Survey, had reached the contract depth of 6,000 feet and was abandoned.

A new lease play in San Patricio County was getting under way centering around the town of Taft. Sinclair Prairie Oil Co. purchased 320 acres of Taft Subdivision out of the Coleman Faulk pasture, about 2 miles north of Taft, paying a reported price of $5 per acre. Texas Co. was reported to have purchased Lot 1 in Section 6, near the town of Taft, also Lots 4, 5, 6, 7 and 8 in Section 16, about 6 miles north of Gregory.

A. W. Dunn has taken over 1,120 acres of the Raminez land out of Share 3, Porcion 18, adjoining the Mission block on which a gas well was recently completed from the Mount Selman. In the same county, S. T. Phelps has blocked 2,500 acres out of Porcion 18 centering around the Flumencio Munoz Survey.

Bee County

In the North Pettus Field, Bee County, Magnolia Petroleum Co.'s No. 3 Scarborough was completed as a gasser. It topped the Pettus sand from 3,606-25 feet, but did not make a drill stem test. The same company's No. 7 Porter was completed for 238 bbls. of oil a day through quarter inch choke with 350 pounds pressure on the casing and 175 pounds pressure on tubing. United Production Corp. has spudded its test which offsets Houston Oil Co.'s No. 3-B Neihaus. In the northeast central part of the county, Weekley Oil Corp.'s No. 2 Weiss was abandoned at 4,254 feet.

Starr County

Sun Oil Co.'s No. 7-C H. R. Guerra & Son, in the northwestern part of Starr County, was drilling at 2,075 feet. It is about a half mile southeast of its No. 4-C H. P. Guerra & Son, completed for a 15,000,000-foot gas well. In the northwest part of the county, Circle W Oil Co.'s No. 1 E. Block, a deep test for the county, was abandoned during the week at 5,753 feet. This is the deepest test to be drilled in the area since 1929.

Nueces County

Stanolind Oil & Gas Co. was preparing to make a drill stem test on its No. 2 Stratton, an interesting wildcat in the southwest part of Nueces County. It has sand from 6,303-17 feet. It is about a mile northeast of the company's No. 1 Stratton completed as a dry hole about three years ago. Texas Seaboard Oil Co.'s No. 1 Ed Jurica, a wildcat in the Rincon Del Oso grant, was abandoned at 5,554 feet after running an electrical core test.

Jim Wells County

In the Seeligson area, Jim Wells County, Magnolia Petroleum Co. went back into its No. 4 Seeligson, completed several weeks ago at a total depth of 3,258 feet and has deepened it to 3,267 feet, the additional depth being in saturated sand, streaked with shale. It was originally completed for one of the best wells in the field, but the gas pressure was strong and the back pressure on the sand restricted the production considerably. Late in the week it was swabbing at 3,267 feet.

Goliad County

Kendricks and O'Byrne's No. 1 Runge State Bank, in the north Pettus area, Goliad County, made a drill stem test from 3,728-38 feet, but the seat did not hold, and the test was unsuccessful. Sand showing oil from 3,732-38 feet was cored and the operators were trying to make another test. Location is in the C. B. Myer Survey No. 26.

Karnes County

North of Caesar Field in Karnes County, Abercrombie and Harrison's No. 1 Martin Shaefer, a wildcat, was drilling in shale at 2,286 feet. It is 3 miles west of Green in the L.P.I.A.&M. Survey.

Zapata County

Merle Gunby's No. 1 Haines, a wildcat in the Alice Haines Subdivision in Block 4, Zapata County, found a shallow sand from 833-40 feet and on a drill stem test it tested 300 feet of oil and drilling fluid. Six and five-eighths inch casing was cemented and it will probably be tested the early part of the week. It is bottomed at 840 feet.

Wildcat Operations in Southwest Texas

Week Ending August 25

ATASCOSA COUNTY

Don Magahan's No. 1 Donna Farms, 3,450 ft. from SE line and 9,100 ft. from NE line of the Barbara Sanchez Sur.
Drlg. 650 ft.

BANDERA COUNTY

A. P. Crane & Co.'s No. 1 Watson, 988 ft. NE line, 926 ft. SE line, Sec. 71, Antonio Curvier Sur.
Drlg. black shale 1,640 ft.

Parkford et al's No. 1 R. L. Duke, G.H.& S.A. Sur.
Location.

Peerless O. & G. Co.'s No. 1 Garrison Sur No. 506, 1,500 ft. from N and 2,700 ft from E lines of Sur. (8 mi. NW of Medina).
Set 800 ft of 15½-in. csg.; S.D.

BASTROP COUNTY

Champion et al's No. 1 Charles E. Anderson, Antonio Navarro Sur.
Drlg. shale 2,005 ft.

Marts & Beavens' No. 1 Fisher Lancaster, 250 ft. SW line, 150 ft. from R.R. on NW, Thomas Garretson Sur. No. 19.
Coring Serpentine 2,007 ft.

BEE COUNTY

Grimes et al's No. 1 Allen, 1½ miles W of Pawnee, Ben Odem Sur.
Drlg. 980 ft.

Hardy McCullough et al's No. 1 M. T. Fox, 1,060 ft. from NW line and 330 ft. from SW line of lease, E of Caesar Field.
Derrick.

United Prod. Corp.'s No. 46 Geo. A. Ray, W. J. Porter Sur., Abst. 529, 330 ft. E line of lease and direct equidistant offset Houston Oil Co.'s No. 3-B Niehaus.
Location.

Weekly Oil Corp.'s No. 1 Laura Weiss, B.&B. Sur., 660 ft. E of No. 1.
Abd. 4,254 ft.

Worth Oil Co.'s No. 1 Rutledge, 1,000 ft. from N line and 300 ft. from E line of A Hadley Sur.
T.D. 300 ft.; cmtd. surface csg.

BEXAR COUNTY

J. G. Bowles' No. 1 Dillon, 750 ft. from road on E and 4,750 ft. from S line of survey, Manuel Delund Sur.
S.D. 1,404 ft.

F. T. Chew's No. 1 C. S. Ogden & Brooks, 50 ft. E line, 2,500 ft. from Mitchell Lake, on 1,500-ac. tract, Irrigated farms.
Drlg. 250 ft.

Dr. Dickens' No. 1 Victor Golia, 150 ft. NW line and 150 ft. NE line of Cardines No. 25 Sur.
Location.

McFee & Briggs' No. 1 Clark, 160 ft. NE line and 2,625 ft. SE line of C. Thieme Sur., 4 miles S of Thelma.
Rig.

Noble & Nakin's No. 1 R. W. DeVilbiss, 300 ft. E line and 1,050 ft. N line of tract, or 300 ft. E line and 4,800 ft. S line of J. W. DeVilbiss Sur., 1 mile W of Thelma.
Drlg. 640 ft.

BROOKS COUNTY

Cole Pet. Co.'s No. 1 Ulrich, 785 ft. E line, 1,323 ft. S line of C.C.S.D.&R.G.N.G. Sur. 7.

Cole Pet. Co.'s No. 1 W. D. Eldridge, Sur. 7, C.C.S.D.&R.G.N.G. Sur.
Drlg. 365 ft.

CALDWELL COUNTY

S. Cargill's No. 2 Dameron, 150 ft. from W line, 450 ft. from N line of D. Cooper Sur.
Fishing 2,277 ft.

W. P. Hynes et al's No. 1 Tramwell, 750 ft. from SE line and 330 ft. from NE line of tract in Ester Berry Sur.
Drlg. 353 ft.

Kurz Oil Co.'s No. 1 Kurz ranch fee, 4,600 ft. SW line and 4,300 ft. SE line of Barnard Klekant Sur.
Drlg. sandy shale 2,112 ft.

Montevista Oil Co.'s No. 1 W. I. Pope, 1,000 ft. from W line and 1,750 ft. from S line of J. D. Rains Sur., in I. Rains Sur.
Drlg. chalk 2,515 ft.

M. C. Moore's No. 1 Lackey, 440 ft. NW line, 150 ft. NE line of Lackey's 193.75-ac tract, or 450 ft. NW line and 2,600 ft. NE line of Damon Sur.
Drlg. 2,005 ft.

Newton Oil Co.'s No. 1 A. D. Mebane, 150 ft. NE of S cor. and 150 ft. SE of road on 490-ac. tract, Francis Berry Sur. No. 12. T.D. 1,973 ft.; cmtd. 5 3/16-in. csg. 1,960 ft.

Stanley Smith's No. 1 J. C. Copeland, about 4 miles SW of Lockhart and beyond the Mebana Estate.
Setting up machinery.

DUVAL COUNTY

Beer & Lewis' No. 1 Peters, Sur. 27
Drlg. shale 2,163 ft.

Tom Graham and Texon Royalty's No. 1 Parr, 2,000 ft. from N line, 2,500 ft. from E line of Pointenant Sur. No. 185
T.D. 3,686 ft.; S.D.

Frank Gravis' No. 1 Hubbard, 960 ft. S line, 330 ft. W line of B.S.&F. Sur. No. 83 Abd. 2,751 ft.

Grimes et al's No. 1 M. Serna, 330 ft. N and W lines of Sur. No. 286.
Rig.

Harrison Oil Co. and Abernathy's No. 1 Serna, 936 ft. from S line, 2,236 ft. E line, Sur. 523 ft.
T.D. 1,822 ft.; S.D. for repairs.

Harvey & Henderson's No. 1 Serma, 330 ft. from N line and 330 ft. from E line of S½ of Sec. 284.
Spud.

Holland Oil Co.'s No. 1 Wood Welder, 1,450 ft. N line and 1,580 ft. W line of Sec. 211.
No report.

O. R. Jeffers' No. 1 Cadena, 1,000 ft. from N line and 330 ft. from E line of Subd No. 3 in Jose Marcello, Hino Josa grant Rig.

W. C. McBride's No. 1 Harlet, 330 ft. from N and E lines of SE 80 ac. of Sec. 1
Coring 2,044 ft.

O'Byrne & Jennings' No. 1 Benavides, 1,73[illegible] ft. from S cor. and 330 ft. from W line at right angles, Sur. 155.
Drlg. shale 2,289 ft.

Sun Oil Co.'s No. 1 Moreno, 330 ft. from W line and 2,000 ft. from S line of NW cor. of H.&W. Sur. 537, in Sec. 540 (5 mi. S of San Diego).
Coring sandy shale 6,746 ft.

Texas Co.'s No. 1 Beall Graham, about 12 miles N of San Diego, in Sur. 571.
Spudded.

FALLS COUNTY

Dorris et al's No. 3 C. E. Greater, G. Basque Sur.
No report.

FRIO COUNTY

Amerada Pet. Co.'s No. 2 Halff & Oppenheimer, begin at most easterly N cor of John H. Gibson Sur. No 16, thence SE along NE line of Sur 2,180 ft., thence SW at right angles 800 ft. (4 mi. SW of Pearsall).
Drlg. Glenrose lime 7,086 ft.

(Continued on Page 45)

Eastland Election May Decide Gas Controversy

EASTLAND, Tex., Aug. 27.—The Eastland city commission has rejected the application of the Eastland Fuel Corp., a subsidiary of the Hickok Oil Corp., for a franchise to install a natural gas distributing system in the city. It at the same time, rejected the Eastland Fuel Corp. application for a 60-cent minimum domestic gas rate and slightly lower commercial rate, and a sales contract that would have bound the fuel corporation to have sold the system to the city for $10 when the plant had paid for itself. The Community Natural Gas Co. now serves the city.

At the same session the Eastland Fuel Corp. rejected a counter proposition submitted by the commission.

The commission went on record that it would call an election on the fuel corporation's proposal and the counter proposal of the city commission when a petition signed by a majority of the qualified voters of the city was presented.

Eastland Fuel Corp.'s representatives stated they were not ready to say whether a petition would be circulated in an effort to obtain the required number of signatures to call the election, but indicated they would.

Possible New Crane County Pool or Extension; Increased Production in the Andrews Test

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Aug. 27.—A new pool opener or extension in Crane County, increase of production in a wildcat discovery in Ector County, another extension to the Cowden Pool, Ector County, and an increase in production in the recent Andrews County discovery after treating with acid were the main features in the Permian Basin, West Texas, this week.

Gulf Production Co.'s No. 1 Snodgrass, in Section 1, Block B-25, P.S.L. Survey, northern Crane County, about 1¾ miles southeast of Wahlenmaier Production Co.'s small well, which is a recent discovery, is appearing as an extension to the new area, or possibly opening up a separate area. So far the well has not shown for a large producer, the Wahlenmaier well, on the Edwards ranch, making only 25 bbls. per day from tight lime, leading to the belief that the Snodgrass well might also make only a small well, as it has been making only around 17 bbls. per day before shooting with 300 quarts. No gauge has yet been reported since it was shot. It is producing from showings logged at 3,390 to 3,400 feet and from 3,482 to 3,500 feet. The Wahlenmaier well is producing from lime at 3,537 feet. This well is approximately 3 miles northeast of the Gulf Production Co.'s producers on the Waddell ranch and may be linked with those producers by wells drilled on acreage lying between the two producing areas. The wells on the Waddell ranch were also of small caliber, consequently this new area is not considered of major importance, although larger wells may be completed later on adjacent acreage.

Andrews County

Humble Oil & Refining Co.'s' No. 1 Means, new discovery well in Andrews County, has not been given a shot since it was treated with 3,000 gallons of acid about 10 days ago, the treatment increasing production to 280 bbls. per day, the well being pinched to 100 bbls. per day until storage could be erected. Two other tests are being prepared for drilling on offset acreage. One test is to be drilled by the same company to the south and one to the northeast of the discovery. The lime in this part of the basin is exceptionally tight, as proved in the Deep Rock producers about 15 miles to the southwest, and in the Ector County wells to the south, none of these wells showing for producers as in many other fields in the West Texas district.

Total depth of the Means discovery is 4,472 feet. It is in Section 2, Block A-35, P.S.L. Survey, and no doubt has caused more geophysical and seismographic surveying, and has brought more attention to the Permian Basin, causing a larger lease and royalty campaign in this county and counties lying on a trend to the north, than any wildcat discovery in this district for a long time. West Texas is now witnessing greater activity than during the past four years. Companies and independents are blocking acreage all over the district, both contracting to drill within the near future on many of these blocks, while other Ordovician tests are expected to be announced in the near future, one probably on the well-known and greatly discussed Fort Stockton "high" that has been out of the limelight since the East Texas Field was brought in. The Humble Oil & Refining Co. has been leasing hundreds of acres on this "high," no doubt with the expectation of drilling an Ordovician test.

Humble Oil & Refining Co., which owns a large block around its No. 1 Means, drew up a development plan for the area and presented it at the Railroad Commission hearing at Austin. The plan requested that wells be spaced in the center of 40-acre units, contending this essential on account of heavy gas encountered in the discovery, and probably in other wells in the field. Pressure was reported as 1,850 pounds. Three casing strings were also recommended in the plan, which is similar to the plan used in the Hobbs Pool, New Mexico.

Another test for Andrews County is to be drilled by the Service Drilling Co. of Big Spring for R. S. Bonds on the McCarley ranch. Location is in Section 29, Block 3, P.S.L. Survey. This will be a wildcat test, 12 miles southeast of the Means discovery.

Ordovician Test in Sterling

Another reported Ordovician test for West Texas will be drilled in Sterling County on a big block held by the Gulf Production Co., if the deal is consummated. John I. Moore, consulting geologist of San Angelo, who is now drilling an Ordovician test near the small McDowell Pool in Glasscock County, is to drill a Permian test, finishing with an 8-inch hole, presumably preparing the test for drilling to greater depths in search of production such as found in the Ordovician wells in the Big Lake Field, Reagan County, about 40 miles to the southwest. The block is on the McIntyre ranch.

Ector County

Landreth Production Co.'s No. 1-C. T.-P. Land Trust, in Section 11, Block 43, Township 1s, T.&P. Survey, a half mile south extension to the Cowden Pool in the northern part of Ector County, made an estimated flow of 200 bbls. of oil with better than 2,000,000 feet of gas daily, from pay logged at 4,212-33 feet. Total depth is 4,270 feet. It was shot during the week with 340 quarts from 4,135 feet to 4,270 feet and increased to over 500 bbls. the first 24 hours after the shot. The gas also increased to around 6,000,000 feet.

More tests are drilling in the Cowden area, and more extensions are promised that pool, which is reaching major importance. Landreth Production Co.'s No. 2-A T.-P. Land Trust, a quarter mile west extension to the pool, looks as if it is also the defining well on that side since it logged sulphur water and had to be plugged back from 4,275 feet to 4,248 feet. It was then given a 400-quart shot from 4,148 to 4,248 feet and flowed 70 bbls. of oil and 21 bbls. of water the first 24 hours.

The Addis Pool, about 18 miles south of the Cowden Pool, Ector County, has been defined on the south by the abandonment of Humble Oil & Refining Co.'s No. 3 Pegues, in Section 37, Block 43, Township 2s, T. & P. Survey. It is a half mile south of production and no showings of oil or gas were encountered in drilling to 4,702 feet.

C. J. (Red) Davidson's No. 1 Cummins, wildcat discovery in northwestern Ector County, which so far has proven but a small producer, has been treated with 2,000 gallons of acid, 170 bbls. of oil load, and increased from about a 20-bbl. well to nearly 160 bbls. the first day after the acid was removed from the hole, although production slumped to 30 bbls. the second day and 27 bbls. the third day after cleaning. It is in Section 10, Block 45, Township 1n, T.&P. Survey.

Pecos County

Another Ordovician test rumored for Pecos County will test a large block near Chancellorsville in western Pecos County, approximately 18 miles west of Fort Stockton. Pure Oil Co. previously drilled a deep test on this, the company's block, to below 5,000 feet, and whether this test is to be carried down, or another drilled nearby, is not known.

Tex-Mex Oil Co.'s No. 1 Netterville, in Section 59, Block 8, H.&G.N. Survey, in northwestern Pecos County, between the Grand Falls Field of Ward County, and the Pecos Valley Pool, Pecos County, is holding attention since it struck an estimated 2,500,000 feet of gas at 2,210 feet, blowing tools up in the hole and causing a fishing job.

Pecos County is to get another test on the White and Baker ranch by Humble Oil & Refining Co., which a few months ago abandoned an Ordovician test nearby on this same ranch. That test went to 9,811 feet testing sulphur water. It was in Section 44, Block Z, T. C. Ry. Survey. No. 2 White and Baker test will be in Section 4, Block 179, T. C. Ry. Survey. Whether it will be drilled in search of Ordovician production is not known at this writing, but presumably it will.

Borden County

Continental Oil Co.'s No. 1 Clayton and Johnson, in Section 34, Block 32, Township 4n, T.&P. Survey; in Borden County, is evidently "blown up" as an oil producer. It struck sulphur water at 3,528 feet and drilled to 3,575 feet before shutting down.

Scurry County

Paul C. Teas' No. 1 Chapman, in Section 100, Block 97, H.&T.C. Survey, Scurry County, is probably good for a 25-bbl. well from pay logged at 1,700-34 feet, the latter being total depth. It was treated with 1,000 gallons of acid, which did not improve it to any great extent.

There is nothing of exceptional to report on the Ordovician tests going down in West Texas, Gulf Production Co.'s No. 103 McElroy, in western Upton County, is now drilling at 10,725 feet in chert, which causes slow "digging."

There were 20 permits taken out this week for drilling more tests in West Texas, several being wildcats.

WICHITA FALLS DISTRICT

The Everts Drilling Co. of Dallas, drilling for deep production in the deep lime area of Archer County, on the J. A. Kemp lands, junked and abandoned its hole which had gone to 3,911 feet. Pipe was set and cemented, but a swab lost in the hole resulted in the abandonment. The

(Continued on Page 41)

Wildcat Operations in West Texas

Week Ending August 27

ANDREWS COUNTY

R. S. Bond et al's No. 1 McCarley, 1,320 ft. from N and W, Sec. 29, Blk. 3, P.S.L. Sur.
Derrick.

Honolulu and Llano Oil Co.'s No. 1 J. B Parker, 1,320 ft. from S line and 1,470 ft. from W line of Sec. 7, Blk. A-44, P.S.L. Sur.
Drlg. 3,775 ft.

Humble Oil & Ref. Co.'s No. 1 B. S. Walker, 660 ft. from E line and 660 ft. from S line of Sec. 6, Blk. A-43, P.S.L. Sur.
Drlg. 1,300 ft.

Humble Oil & Ref. Co.'s No. 2 Means, 1,980 ft. from S and 1,487 ft. from W, Sec. 6, Blk. A-19.
Building rig.

BORDEN COUNTY

Continental Oil Co.'s No. 1 Johnson, 660 ft. from S line and 660 ft. from E line of Sec. 34, Blk. 32, Twp. 4n. T.&P. Sur.
Dry and abnd.; T.D. 3,375 ft.

Brewster County

Joiner-McIntyre's No. 1, 852 ft. from S, 2,399 ft. from E of Sec. 31, Blk. 352, W. M. Mitchell Sur.
S.D. 2,100 ft.

COKE COUNTY

Wm. Hooper's No. 1 Gaston, 240 ft. from S line and 654 ft. from W line of Joseph Sur. No. 11.
S.D. 2,560 ft.

CRANE COUNTY

Brandon et al's No. 1 J. Cowden, 330 ft. from N and 330 ft. from W line of Sec. 13, Blk. X, C.C.S.D.&R.G.N.G. Sur.
Prep. to shoot.

Continental Oil Co.'s No. 1 M. Dawson, 1,320 ft. from N and 440 ft. from E, Sec. 80, Blk. X.
Location.

Gulf Prod. Co.'s No. 1 E. M. Snodgrass, 1,320 ft. from N and 1,320 ft. from W line of Sec. 1, Blk. B-25, P.S.L. Sur.
17 bbls. oil per day 3,390-3,491 ft.; shot; T.D. 3,500 ft.

Texas Co.'s No. 25 King, 1,695 ft. from E line, 2,700 ft. from E line, Sec. 85, Blk. 4, C.C.S.D.&R.G.N.G. Sur.
Pumping; T.D. 2,400 ft.

Wahlenmaier Pet. Corp.'s No. 1 W. P. Edwards, 330 ft. from N and 330 ft. from E of SW cor. of the NE of Sec. 12, Blk. B-23, P.S.L. Sur.
Pumping 15 bbls. per day.

CROCKETT COUNTY

J. D. Young's No. 1 Shannon, 330 ft. from W line, 330 ft. from N line of Sec. 55, Blk. 1, G.C.&S.F. Sur.
S.D. 2,625 ft.

CULBERSON COUNTY

Anderson-Pritchard Oil Corp.'s No. 1 Borders, 1,255 ft. N and 2,305 ft. from W. Sec. 34, Blk. 69, P.S.L. Sur.
Fishing 423 ft.

Miller Bros.' No. 1 fee, 1,900 ft. from N and 660 ft. from E line of Sec. 21, Blk. 97, P.S.L. Sur.
S.D. 1,662 ft.

DAWSON COUNTY

Ray Albaugh et al's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.R.R. Sur.
S.D. 2,940 ft.

ECTOR COUNTY

Atlantic Oil & Prod. Co.'s No. 2 Holt, 660 ft. from N line and 1,980 ft. from E line of Sec. 19, Blk. A, P.S.L. Sur.
S.D. 1,150 ft.

Continental Oil Co.'s No. 2 O. B. Holt, 1,980 ft. from S line and 1,980 ft. from W line of Sec. 20, Blk. A, P.S.L. Sur.
T.D. 4,295 ft.; flowing 221 bbls. in 9 hrs.

Continental Oil Co.'s No. 1-A Kloh, 440 ft. from N line and 2,200 ft. from E line, Sec. 3, Blk. 43, Twp. 1s, T.&P. Sur.
Drlg. 3,165 ft.

C. J. Davidson et al's No. 1 Cole, 660 ft. from N line and 660 ft. from W line of Sec. 10, Blk. 45, Twp. 1n, T.&P. Sur.
Acidized; flowing 25 bbls.

Harrison et al's No. 2 Addis, 990 ft. from N line and 2,200 ft. from W line of Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur.
Drlg. by lost tools; T.D. 3,820 ft.

Harrison et al's No. 3 Addis, 1,650 ft. from N line and 2,200 ft. from W line of Sec. 35, Blk. 43, Twp. 2s, T.&P. Sur.
Location.

Landreth Prod. Co.'s No. 2-A Texas Pacific Land Trust, 441 ft. from N line and 440 ft. from W line of Sec. 3, Blk. 43, Twp. 1s, T.&P. Sur.
T.D. 4,275 ft.; plugged back 4,248 ft.; flowing 71 bbls. oil and 21 bbls. water.

Landreth Prod. Co.'s No. 1-C T.P. Land Trust, 440 ft. N and 440 ft. W of Sec. 11, Blk. 43, Twp. 1s, T.&P. Sur.
T.D. 4,270 ft.; shot; flowed 57 bbls. first hour after shot.

Landreth Prod. Co.'s No. 1 Clarence Scharbauer, 660 ft. from S and E lines of Sec. 20, Blk. 44, Twp. 1n, T.&P. Sur.
S.D. 3,765 ft.

Phillips Pet. Co's No. 1 Kloh, 440 ft. from EL and 440 ft. from SL, Sec. 3, Blk. 43, Twp. 1s, T.&P. Sur.
S.D. 230 ft.

Shell Pet. Pet. Corp.'s No. 2 Jones, 2,310

(Continued on Page 44)

Cayuga Field Extended Mile and Half to South; Long Lake Test Only Gas But Extends Field

By L. E. BREDBERG

DALLAS, Tex., Aug. 27.—There were no wildcat completions reported for East Texas this week and only three locations were announced. However, companies and independents are continuing to block acreage, the former taking the majority of their blocks and acreage on the results of geophysical and seismograph information. The majority of the companies have instrument parties working throughout the district, and nearly every company has a scout assigned to scouting the instrument parties.

The three locations staked during the week are in Ellis, Freestone and Smith Counties. The Ellis location is near Waxahachie, on the Coker farm in the R. De La Pena Survey. Beckner, Finley and others are drilling it. Surface casing has been set on this test which is on the west side of the East Texas Basin, and the first test in the county in several years.

Hailey and Young have made location for a test on the Cochran farm, 1 mile southeast of Luna in Freestone County, in the D. Bullock Survey. Fair and others have spudded a Woodbine sand test 1½ miles southeast of Whitehouse, on the Rushing farm in Smith County. It is 1,000 feet southeast of Roy L. Martin's No. 1 Rushing, a dry hole drilled over 4,000 feet some months ago. The farm is in the J. Herrin Survey.

Hill and Hill of Fort Worth have taken over a block of 5,000 acres 2 miles northeast of Winnsboro in southeastern Hopkins County and are to drill a test. The block centers around the Jasper Williams Survey. John Farrell of Fort Worth has assembled 7,000 acres across the county line and in southern Franklin County, on which a Woodbine sand test is to be drilled. This block was leased following a geophysical survey. The block is approximately 4 miles northeast of Winnsboro, and 5 miles east of the block taken over from the Phillips Petroleum Co. by Hill and Hill. Companies have been buying spreads in and around these blocks, which are on the west side of the basin.

A block taken by L. C. Dodwell and P. N. Wiggins of Dallas, centering in the J. Graham Survey, Abstract 240, Freestone County, is expected to be drilled in the near future. A proposed location is named for the center of the west half of Mrs. J. L. Laster's 244-acre tract in the J. Graham Survey. E. L. Smith Oil Co. of Mexia has staked location on the F. Heimple 160-acre tract on a block taken by the company southwest of Dew in the same county. Another location is expected to be drilled by the American Liberty Oil Co., southwest of the Cayuga Field, and in northeastern Freestone County. The company recently abandoned one test in this area, in the J. B. Bonham Survey. A test south of it, however, made a gas well.

Long Lake

Hunt Production Co.'s test, about 2½ miles northeast of the Long Lake Field apparently will not make more than a gasser, extending that field and assuring the Lone Star Gas Co. of a greater gas supply than anticipated when it consummated a deal with the Tide Water Oil Co. and Texas Seaboard Oil Co. for their gas production from the area. These two companies hold about 20,000 acres in the block, have three gas producers and two oil and gas wells on production, with more acreage proven for gas production. The gas company announced it would lay 76 miles of 12-inch welded line from the field to a connecting point near Waco, on the company's main system, to take gas from the pool. The gas company is taking up a 12-inch line in its Oklahoma gas system to be relaid from the Long Lake Field. This line, however, will not cover the entire distance, and other pipe will have to be used for the fill-in. No booster stations will have to be installed due to the rock pressure of the gas wells being around 2,100 pounds. Whether the gas company has made a deal for gas in the Cayuga Field, northwest Anderson County, is not known, but it is believed the companies will desire to conserve the gas in that field for keeping up the pressure to produce the oil wells. However, there are several dry gassers in that field, two being owned by companies which hold edge acreage, or acreage outside of the Tide Water Oil Co. and Texas Seaboard Oil Co.'s large block. The Lone Star Gas Co. also discussed purchasing gas in that field from those two joint producers at the same time the Long Lake Field deal was being discussed.

The Hunt Production Co. well, mentioned above, is on the Miller farm in the S. Sanchez Survey. It cored around 25 feet of gas sand from 5,290 feet down. It drilled to 5,336 feet, but set casing at 5,290 feet, the test is now standing shut down waiting for cement to set. It is near the water level and without yet logging any oil showings looks as if it has no chances for making an oil producer.

The wildcat test of Byrd-Frost and others on the Burrows farm in the M. Vascue Survey, near Slocum, in southern Anderson County, is making good drilling time, now being below 4,550 feet. This test is about 1 mile southeast of a test recently abandoned by the same operators after they failed to make a producer out of the test which encountered good oil and gas showings. The second test is important on that account.

Cherokee County

South Gulf Oil Co.'s No. 1 Joe Bailey, in the L. Rhodes Survey, northeastern Cherokee County, is drilling in Austin chalk at 3,975 feet after topping it at 3,927 feet. This formation was topped in the old hole at 3,972 feet. The second hole is being drilled as the result of a gas blowout making it impossible to carry the first hole down. Goldston and others' No. 1 Southern Pine Lumber Co., in the N. Newton Survey, about 2½ miles southeast of the Rusk discovery of Cherokee County, is shut down at 4,950 feet, with but little distance to go to find whether it is to be a "duster." No one is putting much faith in the test making a producer.

Houston County

Boone Brothers and others' No. 1 Trinity State Bank, in the C. McEllis Survey, in the southern part of Houston County, which logged a good oil showing last week, is preparing to drill plug and make a test. Samples of the oil show it is to resemble Gulf Coast crude and testing 28-29 degrees gravity at 60° F. The showing of gas made with the oil is sufficient to show it escaping through the mud in the hole. Total depth is 2,037 feet. A core taken from 2,029-34 feet showed no recovery, but a drill stem test yielded better than 400 feet of oil and mud. Elevation is 298 feet. The test will be closely watched by independents and companies alike, having apparent possibilities of opening a new pool in the southern part of the district. No one seems certain as to the formation in which the oil was found.

Cayuga Field

The Cayuga Field was extended about 1½ miles to the south this week when the Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 Sullenberger in the William Snider Survey, came in making 55 bbls. in 24 hours through one-eighth inch tubing choke, with 2 per cent bs. and water. It topped the sand at 4,040 feet and drilled to 4,050 feet, electing to take only 10 feet of sand as it is apparently near the water level. The two companies also have another gasser in the making, their No. 6-A N. N. Wills, on the northeast side of the field, and a west offset to the only pumper in the field, Stanolind Oil & Gas Co.'s No. 1 Tubbs. The Wills test logged top of the gas sand at 3,884 feet, but in drilling to 4,106 feet it failed to pick up any oil, therefore is destined as only a gasser, extending the gas area, but limiting the field so far as oil production is concerned.

Van Zandt County

J. L. Strickland of Canton is assembling a 5,000-acre block centering in the E. Carew, Landers, Powell and Towns Surveys, Van Zandt County, with the intention of drilling a Woodbine sand test. So far only 2,000 acres of the block has been raised, but the remainder will no doubt be available. The block is 2½ miles east of the town of Canton.

EAST TEXAS

There were only 45 locations staked in the East Texas Field this week, the smallest number in a long time. Last week there were 103 staked, or over twice as many. There were 56 tests completed.

Gregg County

Arkansas Fuel Oil Co.'s No. 10 Brown, top sand 3,603 feet, initial pro-

East Central Texas Wildcats

Week Ending August 25

ANDERSON COUNTY

Byrd-Frost, Inc.'s No. 1 J. T. Burrow, 250 ft. N of S line, 25 ft. E of W line of M. Vascue Sur.
Drlg. 2,400 ft.

H. L. Hunt's No. 1 C. A. Miller, 1,120 ft. from SE line and 1,120 ft. from SW line of 196.6-ac. tract, 1 mile S of Tucker, S. Sanches Sur. No. 2-10.
Gas sand 5,281-5,325 ft.; T.D. 5,350 ft.; to P.B. and test gas sand.

J. W. Luttes' No. 1 C. McKee, 357 ft. from S line, 340 ft. from W line of 100-ac. tract, W. F. Pool Sur., SE of Frankston Sur.
Derrick.

J. A. Johnson et al's No. 1 Mrs. N. B. Huffman, 1,650 ft. from W line and 2,700 ft. from S line of survey, 10 miles NW of Palestine, R. S. Patten Sur.
Drlg. 3,725 ft.

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 A. G. Godley, 467 ft. N of S line and 1,400 ft. W of E line of lease, S. Edmondson Sur.
Drlg. 3,510 ft.

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 W. H. C. Goode, 467 ft. out of most westerly NW cor. of survey, Anderson County School Land Sur.
Rigging up.

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 2 Robertson, 633 ft. from W line and 467 ft. from N line of lease, Samuel Snider Sur.
Drlg. 2,420 ft.

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 7 Edens, 1,400 ft. W of E line, 1,400 ft. N of S line of 998-ac. lease, Wm. Snyder lease.
Drlg. 2,250 ft.

Tide Water Oil Co.'s No. 8 Wills, 1,253 ft. E of W line and 467 ft. N of S line of 832-ac. lease, Samuel Edmondson Sur.
Spudded.

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1-C N. N. Wills, 477 ft. from S line and 467 feet from W line of tract, Thomas Bristow Sur.
Location.

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 7-A N. W. Willis, 2,377 ft. from N line and 5,467 ft. from W line of lease, S. Edmondson Sur.
Location.

CHEROKEE COUNTY

Goldston et al's No. 1 Southern Pine Lbr. Co., 330 ft. out of NW cor. of 80-ac. tract, N. Newton Sur.
Drlg. 4,770 ft.

H. L. Hunt Production Co.'s No. 1 Powell Lumber Co., 467 ft. from S and W lines of 52-ac. tract, 1 mile E and one-quarter mile N of discovery well, D. W. McNab Sur.
Location.

Jackson Oil & Gas Co.'s No. 1 H. D. Henderson, 660 ft. from N and W lines of 40-ac. tract out of Tankersley 104-ac. tract, 5 miles NE of Jacksonville on W side of railroad, J. Pineda Sur.
Set csg. 76 ft.

Milhoan Drilling Co.'s No. 1 O. R. Perkins, 1,305 ft. from W line of Perkins 144-ac. tract and 655 ft. from N line of lease, J. M. Martinez Sur.
S.D. 2,450 ft.

Smith and McCrae's No. 1 Tippa, 350 ft. E of W line and 700 ft. N of S line of lease and survey, J. B. Heath Sur.
Set surface csg.

Southern Gulf Oil Co.'s No. 1 Joe Bailey, center 144-ac. tract, 4 miles NE of Ponta, L. R. Rhodes Sur., Abstract No. 724.
P.B.; S.D. 3,450 ft.

Wilson Stubbs Oil Co.'s No. 1 Rowborts, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur.
Old well being drilled deeper; sidetracked at 1,530 ft.

T. J. Wood et al's No. 3 New Birmingham Dev. Co., 660 ft. N and 330 ft. E of No. 1, Levi Jordan Sur.
Location.

Zilkey and McCulloch's No. 1 Bradford, 2,500 ft. from most southerly S line and 771 ft. from E line of survey, 4 miles E of Rusk, J. Armendaris Sur.
S.D. 3,930 ft.

ELLIS COUNTY

Beckner-Finley et al's No. 1 Coker, 2,900 varas along S line of grant from river and 1,700 varas N at R/A, R. De La Pena Sur.
Set surface csg.

FANNIN COUNTY

L. Kean et al's No. 1 L. M. Boyd, 900 ft. from E line and 200 ft. from N line of survey, W. Hunt Sur.
S.D. 2,370 ft.

FREESTONE COUNTY

Burris' No. 1 R. J. Johnson, NE cor. of a 95.5-ac. tract, W. M. C. Jones Sur.
Spudded and S.D.

Clyde Creighton's No. 1 Holly Bros., 854 ft from W and center N and S lines of lease A.B.&M. Sur.
S.D. 5,754 ft.

Gholson et al's No. 1 E. M. and C. H. Watson, 1,450 varas from N line and 1,150 varas from W line of survey, 6 miles NE of Fairfield, R. D. Price Sur.
Location.

Hailey-Young's No. 1 Cochran, 400 ft. N and W lines, D. Bullock Sur., 1 mile SE of Lima.
Location.
Will try to complete as a gas well.

J. E. Wilburn's No. 1 S. McShan, 4,000 ft. from MWL and 5,000 ft. from NEL of survey, G. Diaz Sur.
Set surface csg.

HENDERSON COUNTY

Campbell and Chamberlain's No. 1 R. Ansley, 1,724 ft. W and 300 ft. S of SE cor. of M. Matthews Sur., N. H. T. Thompson Sur.
S.D. 2,150 ft.

American Liberty Oil Co.'s No. 1 McWilliams, 660 ft. from S line and 660 ft. from E line of 140-ac. tract, 10 miles N of Athens near Van Zandt County line, Reece Morrell Sur.
Drlg. 2,750 ft.

Crosby and Pulp's No. 1 M. T. Dobbs, NW cor. of east Dobbs 100-ac. tract, 4 miles E of Malakoff and S of railroad, George Aldrick Sur.
Drlg. 2,571 ft.

(Continued on Page 44)

duction 33 bbls. in 15 minutes through 2-inch tubing choke, total depth 3,603 feet. Finley-Dikes' No. 4 Blackman, top sand 3,655 feet, initial production 75 bbls. per hour through 2½-inch tubing, total depth 3,660 feet. Gulf Production Co.'s No. 10 Charles, top sand 3,631 feet, total depth 3,641 feet, initial production 70 bbls. per hour through 2-inch tubing; No. 12 Strong, top sand 3,692 feet, initial production 50 bbls. per hour through 2-inch tubing choke, total depth 3,700 feet. Humble Oil & Refining Co.'s No. 59-B Laird, top sand 3,546 feet, initial production 68 bbls. per hour tthrough 2½-inch tubing, total depth 3,627 feet. Humphrey's No. 1-A Spear, top sand 3,538 feet, initial production 85 bbls. per hour through 2-inch tubing, total depth 3,576 feet. Invincible Oil Co.'s No. 4 Williams Estate, top sand 3,546 feet, total depth 3,555 feet, initial production 165 bbls. in 45 minutes through 2-inch tubing. A. N. Landers' No. 1 Jeters, top sand 3,558 feet, total depth 3,570 feet, dry and abandoned. J. E. Mabee's No. 20 Cole, top sand 3,535 feet, total depth 3,559 feet, initial production 150 bbls. per hour through 2½-inch tubing. Magnolia Petroleum Co.'s No. 7 Laird and Crim, top sand 3,561 feet, total depth 3,571 feet, initial production 124 bbls. per hour through 2-inch tubing. F. W. Martin's No. 2-B Trip Elder, top sand 3,528 feet, total depth 3,575 feet, initial production 80 bbls. in four hours through 2½-inch tubing. Nemo Oil Co.'s No. 1 Randolph, top sand 3,512 feet, total depth 3,536 feet, initial production 50 bbls. in 30 minutes through open tubing. Tom Potter's No. 3 Anderson, location abandoned.

Shell Petroleum Corp.'s No. 7 Knowles, top sand 3,630 feet, total depth 3,644 feet, initial production 52 bbls. in 30 minutes through open tubing. Dale Sneed's No. 1 King, top sand 3,668 feet, total depth 3,670 feet, initial production 100 bbls. per hour through open tubing. Snowden Oil Co.'s No. 1 Alexander, top sand 3,505 feet, total depth 3,521 feet, initial production 40 bbls. per hour through open tubing. Texas Co.'s No. 35 Cole, top sand 3,496 feet, total depth 3,552 feet, initial production 35 bbls. in 30 minutes through open tubing. Doctor Thompson's No. 6 Hilburn, top sand 3,624 feet, total depth 3,628 feet, initial production 75 bbls. per hour through open tubing. Arkansas Fuel Oil Co.'s No. 22 Burnside, top sand 3,482 feet, total depth 3,506 feet, initial production 46 bbls. 30 minutes through open tubing; No. 9-A McKinley, top sand 3,571 feet, total depth 3,598 feet, initial production 20 bbls. 15 minutes through open tubing. Black-Knight's No. 3 McGrede, top sand 3,638 feet, total depth 3,653 feet, initial production 75 bbls. 30 minutes through open tubing. Continental Oil Co.'s No. 7 Todd, top sand 3,586 feet, total depth 3,654 feet, initial production 96 bbls. per hour through open tubing. Danciger Oil & Refining Co.'s No. 5 Mattox, top sand 3,589 feet, total depth 3,612 feet, initial production 50 bbls. 35 minutes through open tubing. Simms and Stanolind Oil & Gas Co.'s No. 27-B Flewellen, top sand 3,667 feet, total depth 3,677 feet, initial production 30 bbls. 25 minutes through open tubing. Yount Lee Oil Co.'s No. 6-A McKinley, top sand 3,553 feet, total depth 3,573 feet, initial production 35 bbls. per hour through eleven-sixteenths inch choke; No. 11 Stuckey-Thrasher, top sand 3,513 feet, total depth 3,533 feet, initial production 56 bbls. per hour through eleven-sixteenths inch choke.

Rusk County

Gulf Production Co.'s No. 15-A Christian, top sand 3,623 feet, total depth 3,663 feet, initial production 45 bbls. per hour through three-fourths inch choke. Magnolia Petroleum Co.'s No. 4 Leverett, top sand 3,670 feet, total depth 3,720 feet, initial production 14 bbls. in five minutes through 1-inch choke. Arkansas Fuel Oil Co.'s No. 7 Ferguson, top sand 3,650 feet, total depth 3,675 feet, initial production 22 bbls. in 15 minutes through open tubing. Atlantic Oil Producing Co.'s No. 6 Griffin, top sand 3,639 feet, total depth 3,701 feet, initial production 60 bbls. per hour through open tubing; No. 25 Kinney, top sand 3,650 feet, total depth 3,684 feet, initial production 45 bbls. per hour through open tubing; No. 26 Kinney, top sand 3,605 feet, total depth 3,653 feet, initial production 28 bbls. per hour through open tubing; No. 2-B Pinkston, top sand 3,656 feet, total depth 3,709 feet, initial production 75 bbls. per hour through open tubing. Dearing & Son's No. 1 Bradford, top sand 3,565 feet, total depth 3,610 feet, initial production 30 bbls. per hour through open tubing. Fair and Thompson's No. 4-A Wylie, top sand 3,603 feet, total depth 3,665 feet, initial production 30 bbls. per hour through open tubing. Goodknight Oil Co.'s No. 1 Morrell, top sand 3,537 feet, total depth 3,629 feet, initial production 30 bbls. per hour swabbing. Gulf Production Co.'s No. 9 Cashen, top sand 3,736 feet, total depth 3,748 feet, initial production 65 bbls. per hour through three-fourths inch tubing choke.

R. Hadaway's No. 1 Presbyterian Church lot, top sand 3,776 feet, total depth 3,820 feet, initial production 27 bbls. in 45 minutes through open tubing. Humble Oil & Refining Co.'s No. 11 Jones-Fuller, top sand 3,660 feet, total depth 3,674 feet, initial production 126 bbls. per hour through open tubing; No. 14 Guerin, top sand 3,681 feet, total depth 3,723 feet, initial production 75 bbls. per hour through eleven-sixteenths inch choke; No. 7 Thompson, top sand 3,660 feet, total depth 3,679 feet, initial production 120 bbls. per hour through eleven-sixteenths inch choke; No. 1-B Turner, top sand 3,624 feet, total depth 3,688 feet, initial production 7½ bbls. per hour through eleven-sixteenths inch choke. Mid-Kansas Oil & Gas Co.'s No. 16 Price, top sand 3,561 feet, total depth 3,606 feet, initial production 80 bbls. per hour through open tubing. Octo Oil Co.'s No. 2 Tipps, top sand 3,530 feet, total depth 3,591 feet, initial production 20 bbls. in two hours, pumping. Texas Co.'s No. 13 Kirsch, top sand 3,623 feet, total depth 3,626 feet, initial production 20 bbls. in 20 minutes through open tubing. Tide Water Oil Co.'s No. 12 Shaw, top sand 3,700 feet, total depth 3,742 feet, initial production 15 bbls. in 15 minutes through open tubing.

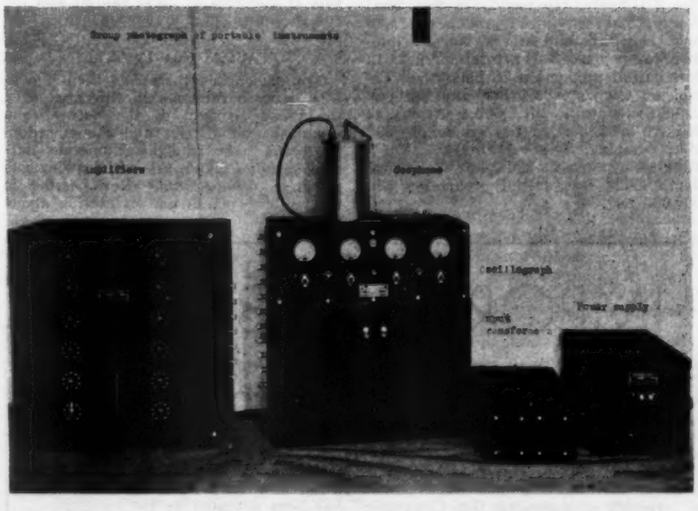
Smith County

Alex McCutcheon's No. 2 Wright, top sand 3,700 feet, total depth 3,709 feet, initial production 30 bbls. in 40 minutes through open tubing. J. W. Mason's No. 1 Irion, top sand 3,721 feet, total depth 3,722 feet, dry and abandoned. Perry-Allen and others' No. 3 Wright, top sand 3,674 feet, total depth 3,710 feet, initial production 32 bbls. in 28 minutes through open tubing.

Upshur County

Eastern Texas Petroleum Co.'s No. 17 Dunbar, top sand 3,622-24 feet, total depth 3,643 feet, initial production 35 bbls. per hour through open tubing; No. 4 Fleet, top sand 3,568 feet, total depth 3,578 feet, initial production 80 bbls. per hour through open tubing. Barkley and Crotty's No. 5 Webb, top sand 3,698 feet, total depth 3,718 feet, initial production 20 bbls. in 30 minutes through open tubing. Magnolia Petroleum Co.'s No. 4 Webb, top sand 3,720 feet, total depth 3,735 feet, initial production 90 bbls. per hour through open tubing. B. F. Phillips' No. 3 Starr, top sand 3,648-55 feet, total depth 3,657 feet, initial production 50 bbls. per hour through open tubing.

Tulsans to Make Seismograph Survey in Rumania



A party of five Tulsans sailed from New York on the S.S. Washington on August 29, bound for Europe to conduct a seismograph survey of Rumania. The contract was received recently by the Seismograph Service Corp., of Tulsa, from a large British oil company which has extensive producing operations and refining facilities in the Rumanian fields. The contract probably was an indirect result of the International Petroleum Exposition, for the Tulsa concern first contacted a representative of the British company while he was attending the oil show, according to George Martin, secretary of the corporation. The British agent remained in this country some time after the oil show, visiting local fields and studying the scientific phase of the industry.

The Tulsa seismograph party will be headed by Sam Stuart, and will include W. B. Sibley, observer; Albert Koch, junior observer; L. G. Cornish, computer, and Brooks Green, shooter. They will land at Hamburg, Germany, cross Germany and go through Poland into Rumania. They will carry on the seismograph program on the eastern slopes of the Carpathian Mountains, ranging down to the Black Sea. The minimum contract time is set at three months, but it is expected the program will require a longer period. Ploesti, Rumania, will be the base of operations. Seismograph equipment valued at $15,000 has been sent from Tulsa to be used in the Rumanian operations.

The Seismograph Service Corp. has equipment successfully working in the oil fields near Stryj, Poland; another in northern Africa, and with Admiral Byrd's expedition at the South Pole. As a result of Byrd's stop in New Zealand on his way south, the company has recently shipped an order of seismic equipment to the New Zealand Government Department of Research, to supplement certain apparatus the government has operating on a survey of its natural resources.

Shell Petroleum Corp.'s No. 4 Brawley, top sand 3,729 feet, total depth 3,738 feet, initial production 34 bbls. in 30 minutes through open tubing. Wadley and Lyons and others' No. 3 Cocke, top sand 3,616 feet, total depth 3,623 feet, initial production 30 bbls. in 30 minutes through open tubing.

Cayuga Field (Anderson County)

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 Rampy, total depth 4,082 feet, plugged back to 3,980 feet. Completed for gas well with shut-in pressure of 1,500 pounds. Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 Sullenberger, total depth 4,050 feet, initial production 55 bbls. in 24 hours through one-eighth inch choke, with 2 per cent b.s. and w., top sand 4,040 feet.

West Texas Fields

(Continued from Page 39)

rig has been skidded 80 feet north for another try for the deep production which is paying off in wells about 4 miles northeast of the test.

The district got a rain during the week but not sufficient to help the some 150 tests which are shut down waiting for water. There were 26 locations staked in the district this week and 28 tests completed, the number of completions and locations dwindling as operators feel it useless to try to go on with drilling when the water supply is negligible.

American Refining Properties' J. A. Dennis lease in the J. Moss Survey, in the Bulcher Pool of Cooke County, was sold during the week to Horwitz of Wichita Falls. The lease consists of 80 acres on which there are 15 producing wells.

Pipe line runs from the district averaged 62,765 bbls. per day during the week, a gain of nearly 650 bbls. per day.

Texas Co.'s No. 5 Les K. Johnson, in the extreme western part of Foard County, where the company has two good high gravity oil producers, which are also making large volumes of gas which is run to a casinghead plant, is now pulling pipe to deepen after shutting off gas sand logged at 3,602 feet. It made an estimated flow at this depth. The other two producers are producing oil from around 4,000 feet, consequently this latest test on the ranch has but little more drilling before it will reach the oil pay horizon. The discovery of the producers in this area has led to considerable leasing in Foard and adjacent counties, and has resulted in one other test now being drilled in the county, on the Beverly ranch northwest of Cromwell, and the proposal to drill still other tests in the county.

COMPLETIONS IN WEST TEXAS

Crockett County

Eppenauer Drilling Co.'s No. 1 Owens, dry and abandoned 1,875 feet.

Ector County

Humble Oil & Refining Co.'s No. 3 Jones, top pay 3,610 feet, shot 200 quarts from 3,570-3,670 feet, total depth 3,681 feet, initial production 344 bbls.; No. 1 Pegues, dry and abandoned 4,702 feet.

Fisher County

Central Crude Oil Co.'s No. 4 Flanigan, top pay 3,106 feet, total depth 3,135 feet, acidized, initial production 550 bbls., swabbing.

Glasscock County

Tribal Oil Co.'s No. 5-B Edwards, dry and abandoned 2,452 feet.

Howard County

Illinois Oil Co.'s No. 1-B Davis, total depth 2,826 feet, shot 1,000 quarts from 2,430-2,825 feet, initial production 681 bbls. Continental Oil Co.'s No. 10 Settles, top pay 2,302 feet, total depth 2,380 feet, initial production 41 bbls. per hour pumping.

Jones County

Southern Oil Co.'s No. 2 Williams, top pay 2,508 feet, total depth 2,545 feet, initial production 12 bbls. per day pumping. Texas Inland Oil Co.'s No. 1 Young,

top pay 1,750-53 feet, total depth 1,760 feet, initial production 50 bbls. oil and 25 bbls. salt water per day; No. 1 Sayles, dry and abandoned 2,045 feet.

Pecos County

Aero Refining Co.'s No. 1 Gray, dry and abandoned 1,370 feet. J. G. Montague's No. 1 Masterson, dry and abandoned 1,580 feet.

Upton County

Texas Pacific Coal & Oil Co.'s No. 4-D Lane, top pay 2,322 feet, total depth 2,370 feet, initial production 178 bbls. per day pumping.

Ward County

Randall and others' No. 1 Monroe and others, dry and abandoned 3,102 feet. Gulf Production Co.'s No. 49 O'Brien, top pay 2,565 feet, total depth 2,765 feet, initial production 370 bbls. F. Postelle and others' No. 1 Monroe, top pay 2,400 feet, total depth 2,498 feet, initial production 70 bbls. Sinclair Prairie Oil Co.'s No. 2 Archenhold, top pay 2,978 feet, total depth 3,054 feet, initial production 103 bbls. in 15 hours (acidized).

Winkler County

Sid Richardson's No. 1-G Scarborough, top pay 2,670 feet, total depth 2,955 feet, initial production 109 bbls. through tubing.

WICHITA FALLS COMPLETIONS

Archer County

R. Anderson's No. 1 Jackson, dry and abandoned 1,199 feet. Tex-Ho Oil Co.'s No. 8 Anderson, top pay 1,410 feet, total depth 1,417 feet, initial production 10 bbls. oil and 100 bbls. water after treating. Sinclair Prairie Oil Co.'s No. 30-D Wilson, top pay 1,578 feet, total depth 1,581 feet, shot with 5 quarts, initial production 1 bbl. oil and 4 bbls. water. Fain-McGaha Oil Corp.'s No. 19 Green, top pay 1,173 feet, total depth 1,188 feet, initial production 310 bbls. after acidizing; No. 18 Green, top pay 1,163 feet, total depth 1,177 feet, initial production 300 bbls. per day; No. 20-C Ferguson, dry and abandoned 669 feet.

Jack County

R. T. Nail's No. 2 Peterson, total depth 358 feet, initial produciton 5 bbls. Ray's No. 1 Conley, dry and abandoned 710 feet.

Clay County

Texas Co.'s No. 3 George, dry and abandoned 1,470 feet.

Montague County

Raizen Brothers' No. 3 Hinton, top pay 782 feet, total depth 789 feet, initial production 51 bbls.

Wichita County

Lyons and Bivins' No. 1 Williams, dry and abandoned 210 feet. Edward Schlaffke's No. 1 Honaker, dry and abandoned 1,067 feet. Porter Oakes and others' No. 2 Dobie, top pay 371 feet, total depth 700 feet, initial production 3 bbls. Petroleum Producers Co.'s No. 40 Allen and Kemp, top pay 1,472 feet, total depth 1,495 feet, initial production 54 bbls.

Wilbarger County

Dunaway and others' No. 1 Waggoner, top pay 1,205 feet, total depth 1,212 feet, initial production 100 bbls. Hegralle Oil Co.'s No. 10-A Waggoner, top pay 1,865 feet, total depth 1,873 feet, initial production 310 bbls.; No. 11-A Waggoner, dry and abandoned 636 feet. Phillips Petroleum Co.'s No. 2-N Waggoner, top pay 2,561 feet, total depth 2,601 feet, initial production 104 bbls. Waggoner Refining Co.'s No. 1-W Waggoner, top pay 1,210 feet, total depth 1,221 feet, initial production 100 bbls. day; No. 1-B Waggoner, top pay 2,566 feet, total depth 2,576 feet, initial production 500 bbls. per day.

Young County

Calvin Brothers' No. 1 Calvin, top pay 563 feet, total depth 580 feet, intial production 10 bbls. Honea's No. 2 fee, top pay 911 feet, total depth 918 feet, initial production 12 bbls. McLester Oil Co.'s No. 1 Ribble, dry and abandoned 3,095 feet. Texas Co.'s No. 9 Finch, top pay 667 feet, total depth 676 feet, initial production 68 bbls.

PANHANDLE COMPLETIONS

Gray County

Continental Oil Co.'s No. 1 Combs-Worley, top pay 2,917 feet, total depth 3,080 feet, initial production 186 bbls., shot 30 quarts from 3,063-78 feet. Danciger Oil & Refining Co.'s No. 11 Powell-Beck, top pay 2,841 feet, total depth 2,913 feet, initial production 910 bbls. per day on gas lift. Dixon Creek Oil & Refining Co.'s No. 6 Horner, top pay 3,190 feet, total depth 3,257 feet, initial production 394 bbls. Hoffman Oil Co.'s No. 1 Massie, location abandoned. Kewanee Oil & Gas Co.'s No. 6 Smith, top pay 3,161 feet, total depth 3,254 feet, initial production 298 bbls. Mordyan Oil Co.'s No. 3 Davis, top pay 2,670 feet, total depth 2,775 feet, initial production 1,347 bbls. Vulcan Oil Corp.'s No. 1 Massie, top pay 2,074 feet, total depth 2,734 feet, plugged back to 2,734 feet, initial production 20,000,000 feet of gas.

Hutchinson County

Reiger and others' No. 1 Ware, top pay 2,950 feet, total depth 3,055 feet, shot 240 quarts from 2,950-3,055 feet, initial production 424 bbls. pumping. Badger Oil Co.'s No. 7 Lewis, top pay 2,914 feet, total depth 2,978 feet, initial production 393 bbls. pumping. H. Stekoll's No. 2-A Canadian-Whittenburg, top pay 2,985 feet, total depth 3,015 feet, shot 100 quarts from 2,965-3,015 feet, initial production 149 bbls. pumping.

Wheeler County

Bell Oil & Gas Co.'s No. 4 D'Spain, top pay 2,380 feet, total depth 2,480 feet, initial production 475 bbls. pumping. Meyers and Kennedy's No. 1 Harvey, dry and abandoned 2,285 feet. Ohio Fuel Co.'s No. 2 D'Spain, top pay 2,374 feet, total depth 2,526 feet, initial production 1,673 bbls. Rawlings and others' No. 1 Plummer, top pay 2,443 feet, total depth 2,512 feet, initial production 70 bbls. Shell Petroleum Corp.'s No. 1 D'Spain, top pay 2,408 feet, total depth 2,502 feet, plugged back to 2,486 feet, initial production 292 bbls. pumping. Skinnery Oil Co.'s No. 1 Binkley, gas pay 2,310-2,440 feet, total depth 2,628 feet, initial production 55,000,000 feet.

Kellerville Development Typical in Panhandle

(Continued from Page 12)

1932. The bottom of the hole was in the base of the Permis or in the top of the Pennsylvanian. It is located in the northwest corner of Briscoe County.

Phillips Petroleum Co.'s No. 2 Wilson is now drilling in Moore County, 50 miles north of any producing area and is reported making sand tester test at 5,571 feet with negative results and will drill deeper. This well was started about 60 days ago and is being drilled with rotary by the Lee Drilling Co. There is a 136-foot derrick over the hole and all equipment used is of the latest and heaviest type. Steam power is used and the boilers fired with gas. The test is being made in this basin north of the granite ridge to determine the possibilities of the Pennsylvanian formations to produce oil or gas.

Another test at the other end of this district is being carried on at Humble Oil & Refining Co.'s No. 1 Smith, in north Childress County near the Oklahoma-Texas state line. The well is being drilled in the basin on the south side of the granite ridge and several tests have been made with sand testers by the Halliburton Oil Well Cementing Co. without commercial results being reported. This well is now drilling at below 4,300 feet. The outfit is powered by three 200-horsepower Waukesha internal combustion engines with slush pumps driven by belts from the countershaft.

These two tests are about 120 miles apart, but the actual drilling activities for the area are even further separated as there is a well drilling near Dalhart, Tex., northwest of Amarillo and another test 235 miles to the east is over the state line in Oklahoma. Another deep test is being drilled about 8 miles southeast of Amarillo near the airport by Oxnard and English and is now reported at a depth of about 5,500 feet. This venture is financed by local capital and little is known of the developments thus far.

Waste Gas Problem

For some time there has been a conflict between interests in this area over the proper control of the natural gas found in the district and the end does not seem to be in sight. Numerous natural gasoline plants are withdrawing gas in large volumes and after passing it through the plants and extracting about .3 of a gallon of gasoline per 1,000 feet of gas handled are turning the residue into torches and burning it. The pipe line systems are taking about 12,000,000 feet daily for delivery to distant cities during the summer months, and a considerable quantity is being burned in carbon black plants in the district.

It has been suggested that some of this waste gas could be returned to the formation from which oil has been removed but this does not seem to be economically possible when it is considered that over 800,000,000 feet of gas was being expelled to the atmosphere daily. To force this gas back into the underground formations would require that it be compressed to not less than 200 pounds and to handle any appreciable volume would mean the investment of a large sum of money in plant equipment. If all this is done it is believed by many that the formations would only accept a limited volume of gas so the proposal is not meeting with much favor. If all the companies interested would not join in this repressuring venture it is hardly reasonable to expect a few to undertake to conserve their gas at considerable added production cost.

While everyone seems to be hopeful that some satisfactory solution to this vexing problem will be found in the near future there still does not seem to be much chance of getting the conflicting interests to concede much toward the solution of the problem even though they all admit that something ought to be done about it. Something like Mark Twain's observations about the weather. "Everyone talking about it, but no one doing anything."

Equipment Purchases

All supply stores and dealers in equipment report increased sales during the past summer with business holding up and prospects for considerable activity this fall. All kinds of material are being bought and as there is a lot of cleanout work going on in the older fields the rigs are being put in good condition and gas engines overhauled.

Many wells are pumped with central powers and Empire Gas & Fuel Co. has recently purchased from Frick-Reid Supply Corp., of Fort Worth, Tex., a unit suitable for handling 10 wells and powered with a 100-horsepower gas engine. This is a single eccentric band wheel type power with a band wheel 24 feet in diameter by 20-inch face and driven by an 18-inch wide belt. It has a 36-inch throw eccentric and is mounted upon substantial concrete foundation and housed in wooden frame building covered with corrugated sheeting. A 10-foot travel Reid type idler is used between engine and band wheel. This power is being installed about 7 miles northwest of Pampa, Tex., and will pump wells about 3,200 feet deep prorated to 20 bbls. daily. The jacks at each well have a ratio of 1½ to 1 leverage and this compensates for any line loss between power and well and permits of a little more than 36-inch stroke of the polished rod.

Gulf Production Co. has two Lufkin and two Oil Well central powers pumping from four to eight wells each from a total depth of about 3,000 to 3,100 feet with an allowable of 20 bbls. of oil and not much water.

Operators are giving a good deal of attention to lease details and there are several very important deep tests being drilled and contemplated to check the production possibilities in the old basins away from the flanks of the buried Granite Mountains along which the present oil and gas pools are found.

IMPORTANT BOOKS
for the Oil Man's Library

"BROWN'S DIRECTORY OF AMERICAN GAS COMPANIES"

Ever since publication of its first edition 47 years ago, "Brown's Directory of American Gas Companies" has been accepted as the authoritative guidebook for those whose interests require dependable information on gas companies and their personnel. The 1934 edition, just off the press, ably supports the fine reputation established by previous editions.

The first list is an alphabetical index of gas companies in the United States, Canada, or Europe, each firm being identified as to its product—manufactured gas, natural gas, butane gas, or coke-oven gas—or as a holding or operating company. This is followed by an index of the cities and towns supplied with gas, the type of gas being indicated: butane; coke-oven; mixed; natural; or propane.

Lists of gas companies in alphabetical order by states and cities are then provided; five separate indexes are furnished, to cover artificial gas; butane gas; coke-oven gas; natural gas, and holding and operating companies. The final index is a list of officials and department heads, each name being followed by a page reference to the company with which the official is connected.

In the state-and-city list of gas companies, complete information is furnished for every firm named, such as: names of executives, department heads, and local managers; process of manufacture; by-products; miles of mains and lines; gas-holder capacity; rates; area served; sale of appliances, etc.

"Brown's Directory of American Gas Companies" may be purchased through the Book Department of The Oil and Gas Journal at the regular price of $15.00, express prepaid. A copy will be forwarded promptly upon receipt of check or money order for that sum. Where no payment accompanies the order the book will be sent express c.o.d.

CONTINENTAL SALES CHANGES

E. S. Karstedt, vice president in charge of marketing of the Continental Oil Co., has announced four important changes in his department.

A. J. Shimpfky, supervisor of the general office station sales division, was made assistant manager of the marketing division at Albuquerque, N. Mex., and J. R. Cunningham will succeed him in the Ponca City office. P. W. Riggins, until recently Oklahoma City manager, will succeed Mr. Cunningham as supervisor of jobbing sales and assistant to

O. B. Lloyd, assistant general sales manager. A. B. Caskey was appointed Oklahoma City manager. He formerly was in the Ponca City marketing division office.

Coast Strike Results in California Tax Decline

Continuing a decline begun last June, California gasoline tax collections for July reached a total of only $2,996,992.61, falling short of similar collections for the same month of last year by $323,239.65, or 9.7 per cent. The unexpected decrease can be partly attributed to the strike trouble which paralyzed many parts of the State during the month. A serious shortage of tax funds will result if the decline is continued, state authorities declare.

The table below lists oil companies reporting sales of more than 1,000,000 gallons. Differences between total and taxable sales are accounted for by sales to the Government and by shipments to other states or countries.

Name—	Gallons actually sold	Net taxable gallonage
Associated Oil Co.	18,071,969	8,438,821
Bush, R. R.	1,223,329	1,228 967
Caminol Co., Ltd.	2.790.320	2,805,358
Elington Oil, Ltd.	1.020.677	1.025,556
Exeter Ref. Co.	1,898,111	1,861,851
General Pet. Corp.	17,590,304	6,689,447
Macmillan Pet. Corp.	3,054,918	3,079.979
Western Oil	1,817,621	1,833,094
Hancock Oil Co.	4,895,041	4,888,635
Richfield Oil Co.	8,895.832	6,094,923.9
Mohawk Pet. Co.	1,554,927	1,250,127
Norwalk Co.	2,318,933	1,107.239
Olympic Ref. Co.	1,328,001.5	1,328,574 9
Petrol Corp.	1.852,597	1,838,810
Rio Grande Oil	2,171,786	1,863,754
Sunset Pacific Oil	4.730.258	591,110
Seaside Oil	1,686.808	957,586
Shell Oil Co.	25,560,800	9,502,890
Standard Oil	52,003.659	19,105,882.1
St. Helens Pet., Ltd.	1,450,358	1,425.400
Texas Co.	9,867.812	4.732,325.5
Union Oil Co.	18,230,452	8,567,630.5
Wilshire Oil Co.	4,698.424	4.731.281.8

NEW USE FOR FUEL OIL

The use of fuel oil to spray railroad beds serves a dual purpose. Besides the main object of laying the dust in the bed, the oil retards the growth of all weeds within the limits of application. In the revival of this practice by a well-known northern railroad, says the Shell Globe, some new equipment was brought into use. The old method of gravity flow was replaced by pressure application of hot oil. The oil is heated to 200° F. and sprayed through the spreaders at a pressure of 200 pounds per square inch. Steam injection behind the pump and again just before the nozzles is an important factor in the formation and continuity of the spray. The finely divided oil forms a coating over rock ballast and does the work of twice the amount of oil applied by gravity methods. A flat car holds the complete unit and a shelter stands over the pump and engine assembly in the center. Lines leading down the sides of the car carry the oil to horizontal pipes where it is released within a few inches of the bed. A very marked improvement in riding comfort in cars on this road is noted by laying the dust in this manner.

WILDCAT STAG PARTY

LOS ANGELES, Calif., Aug. 25.—The wildcat committee of the California Oil and Gas Association staged a very successful stag party at the Uplifters Club in Santa Monica Canyon on Saturday, August 18. The festivities started off with several boxing bouts, dinner in the open air, an excellent vaudeville show and an evening of other varied entertainment. A few of those present included L. P. St. Clair, president of Union Oil Co.; R. A. Broomfield, president of Barnsdall; Charles S. Jones, president of Rio Grande Oil Co.; Dana Hogan, president of Hogan Petroleum Co.; J. R. Pemberton, oil umpire; Frank Morgan, vice president Rio Grande Oil Co.; Rush Blodget, general manager of Oil Producers Sales Agency; Joseph Jensen, Associated Oil Co.; E. M. Bedford, Western Gulf; Dick Guiberson, W. E. Dunlap, Dave Kilgour and Howard Marshall.

High Canadian Gasoline Tax Hinders Industry

OTTAWA, Canada, Aug. 25.—Recent figures issued by the dominion bureau of statistics show a 25 per cent increase in four years in the average gasoline taxes paid by motorists in Canada. Almost simultaneously with the increase in taxation was a marked decline in the consumption of gasoline. The taxation, originally imposed to pay for highways, is now being absorbed in most provinces into the general revenue.

From 1930 to 1932 the average gasoline tax in Canada was 5.44 cents per imperial gallon. This year the average is 6.77 cents per gallon, equivalent to approximately one-quarter of the selling price of popular grades of gasoline throughout the dominion.

Taking a three-year average from the bureau's last official figures covering the total value of new cars produced in Canada, at the works, for the period 1930-32, the last available, the average per annum totals $61,097,512. In the same three-year period motorists—representing 10 per cent of the population—have paid out annually an average of $44,420,707 in gasoline taxes and licenses, or approximately 70 per cent of the value of new car production.

While the gasoline tax has increased by 25 per cent, the selling value of cars at the works had dropped from $91,776,306 in 1930 to $38,560,796, and gasoline consumption has declined from over 600,000,000 gallons in 1929 to 484,323,000 gallons in 1933.

Motor executives throughout Canada are urging alleviation of some of the tax burdens on the industry.

ROCKY MOUNTAIN RUNS

Estimated daily average production for the week ending August 25 follows:

	Bbls.
WYOMING	
Salt Creek	17,920
Big Muddy	1,800
Badger Basin	40
Black Mountain	400
Byron	370
Dallas Derby	510
Dutton Creek	70
Elk Basin	600
Ferris	20
Frannie	2,240
Garland	1,630
Grass Creek	1,640
Greybull	10
Hamilton Dome	1,010
Hudson	300
LaBarge	1,500
Lance Creek	410
Lost Soldier	1,580
Mule Creek	shut in
Midway	100
Notches	shut in
Oregon Basin	3,300
Osage	710
Pilot Butte	30
Rex Lake	shut in
Rock River	1,510
South Casper	600
Poison Spider	230
Teapot	20
Total Wyoming	38,550
MONTANA	
Buckley-Border	260
Cat Creek	620
Cut Bank	3,330
Dry Creek	shut in
Kevin-Sunburst	4,650
Lake Basin	40
Pondera	880
Total Montana	9,770
COLORADO	
Florence	150
Fort Collins and Wellington	560
Iles Dome	2,210
Moffat	510
Orchard	100
Rangely	90
Tow Creek	190
Total Colorado	3,810
NEW MEXICO	
Artesia	450
Cooper area	480
Empire area	100
Eunice area	2,630
Getty Pool	0
Hobbs	36,400
Hogback	210
Hospah	shut in
Jal	2,930
Lea area	1,690
Jackson	1,600
Maljamar	290
Rattlesnake	700
Table Mesa	90
Total New Mexico	47,570
Total Rocky Mountain region	99,700

Quality and Grade of Mid-Continent Asphalt

(Continued from Page 18)

in this manner will more than double the number of grades of asphalt that can be manufactured in the plant. In order to meet some of the specifications for highway asphalts and cutbacks, the charge must be processed with air and steam.

By blending a waxy stock with an asphaltic stock and processing to the desired grade, the weathering properties of the asphalt will be greatly improved. Waxy stock raises the penetration at 32° F. and lowers the penetration at 115° F.,

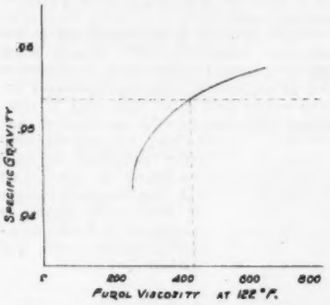


Fig. 3. Curve showing the relation between gravity and viscosity in asphalt

compared to asphalt of the same penetration at 77° F. There will also be a decrease in the softening point and the ductility at 77° F., while the product is accompanied by an increase in ductility at 32° F. On this type of stock, processing at high temperature destroys the ductility at 77° F. The wax per cent in the finished product should never exceed the 2 per cent that is incorporated in most of the specifications. Processing at a lower temperature will increase the softening point compared to the asphalt with the same penetration at 77° F.

Blown asphalts will blend very easily if the two blending asphalts have softening points within 75° of each other. The softening point and penetration will blend in a direct ratio while the ductility has a tendency to favor the greater ductility. All blending of asphalt should be done with the temperature about 450° F. and with steam.

In Figure 1 the blower (I) is more economical to use than the steam jet for blowing asphalt. The blower should have a capacity to produce from 25 to 35 cubic feet of air at 10 to 20 pounds pressure per minute per ton of asphalt produced.

Cut Back Asphalt

The Asphalt Institute[2] has classified the liquid asphaltic road materials for the manufacturers to use as a standard to avoid overlapping their grades of products. Only two grades of blending naphtha are required to process the asphalt for cut backs for the most used grades.

The winter months are the off season for the sale of cutbacks. To keep the plant operating, and to meet the early season rush the producer should have a cut back unit of one or two 1,000-bbl. blending tanks, and a large tank with steam coils for storage. During the time the cut back sales are slow, the asphalt should be blended with 16 to 20 per cent of naphtha and stored in the large tank. Then at any time it can be blended in the blending tank to meet the desired specifications.

The blending tank should be installed with steam coils, and a 2-inch compressed air line should enter the tank on opposite sides. With this arrangement 30 minutes to one hour of agitation will mix the blend thoroughly. A large pump should be installed close to the tank for loading purposes and to circulate the tank if desired. Compressed air connections should be made to all lines to clean them out. This will avoid contaminating the different grades during handling.

[2]Specifications for Liquid Asphaltic Road Materials. The Asphalt Institute, 801 Second Avenue, New York.

Large graphs should be made from the results of laboratory and plant blends for the convenience of the operator and also for the laboratory in estimating blends for new specifications. The graphs should show the specific gravity, viscosity, initial boiling point, per cent over at 437° F. 600° F. and 680° F.

Figure 2 shows a sample of the graph to be made with each blending naphtha for the different asphaltic road materials. Such a graph made of the plant products will be of great convenience to the asphalt laboratory. Figure 3 is a sample graph for road oils.

Emulsified Asphalt

Asphalt emulsions are gaining favor all the time. They are as effective as the cut backs and can be used in some places where it would be impossible to use cut backs. The only drawback for asphalt emulsion is its present price. The Mid-Continent asphalt does not make a good emulsion product for the best asphalt for emulsions should be wax free.

Government's Aim Is to Help Industry, Says Ickes

(Continued from Page 11)

that they do not need tangible memorials; whose contributions to the progress or the well-being of the human race constitute their own memorials. We have builded this memorial that we dedicate today not because it is necessary to perpetuate a fame that is already high, but as an expression of our esteem for the person in whose honor we have gathered together. We raise our feeble voices today to acclaim a man of vision and of courage enough to follow that vision to the end of the rainbow trail. Coming here in great numbers from a wide area, many of us by motive power which his discovery made possible to us, we rejoice in the mechanical, industrial and social benefits that have flowed from the development of "Drake's Folly." We say to all men who dream dreams, rosy-hued with promises for mankind, whether those dreams be of material or of spiritual things: "Persevere; ignore if you can, but in any event disregard the jibes of the heavy-footed plodder who never raises his eyes to the stars; remember what was accomplished for mankind 75 years ago in Titusville by a man possessed not only of vision but of courage."

Additions to Mobil Group Are Announced by Socony

Plans are under way greatly to increase the size and influence of the "Mobil" family, according to the announcement of the Socony-Vacuum Oil Co., Inc. This name, which now identifies "Mobilgas" and "Mobiloil," sold through more than 100,000 retail outlets in this country, becomes the brand identification of four of the principal automobile accessories to be marketed through the same channels.

Many private brands, formerly sold by the eight marketing companies, have been eliminated and four standard items under the "Mobil" brand and further identified by the "flying red horse" shield are to be marketed in their place. These items include Mobilgloss, an automobile cleaner and polish, Mobilwax, an automobile wax, Mobil-Upperlube, a top cylinder oil and Mobil Handy Oil, for household and automobile use. Other items will follow. Each of these products is put up in styled packages. Particular attention is called to the "Mobilwax" which is packed in tube form.

"This announcement is the second important step in product standardization since the merger of the Vacuum Oil Co. with the Standard Oil Co. of New York about two years ago," W. F. Kemball, manager of the Mobil products department, explained. "The gasoline and oil products were standardized under the brands, 'Mobilgas' and 'Mobiloil.' The 'Mobil' brand now will be used to identify various automotive specialties which as a group will be known as 'Mobilproducts.'"

Diesel Powered Rotary Drilled Despite Drought

(Continued from Page 35)

gersoll-Rand two-stage air compressor driven from the sheave end of the reverse gear shaft. Air is used to operate the reverse gear clutch and to start the Diesel engines.

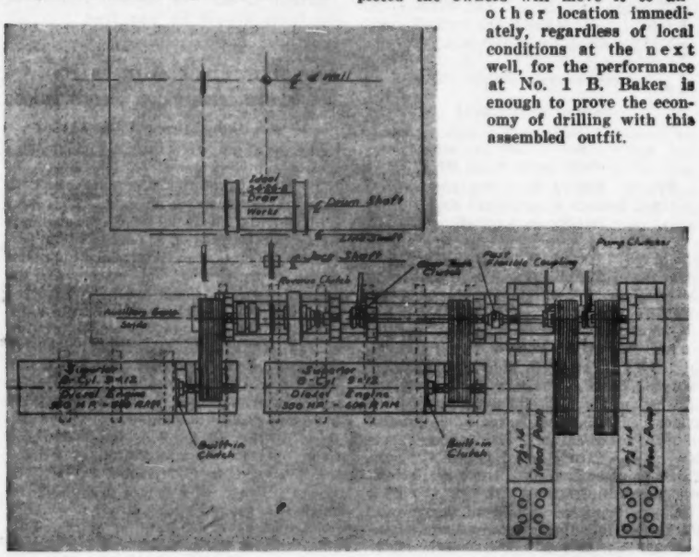
A Gould centrifugal pump is mounted on the same skids and pumps water at pressures necessary for swabbing down the derrick floors and for other purposes around the rig. The clutch air storage and engine starting air tanks are mounted upon these skids also.

The lighting plant for the rig is a Waukesha engine gasoline powered unit direct connected by a Fast flexible coupling to a 5-kilowatt, 125-volt D.C. Westinghouse generator. This lighting unit along with the Superior Type "BL" air compressor for starting air is mounted upon the skids along with the other auxiliary equipment in the position shown in the sketch.

Performance Satisfactory

The performance of this rig has been very satisfactory to the contractor and well owners alike and water and fuel consumption is low and during this hot, dry summer water has been at a premium at many locations and operations have been suspended awaiting much needed rains. No delays because of water has been experienced at this well and ample power has been available at all times. On one occasion 5,600 feet of 6⅝-inch drill pipe was pulled out of the hole in 2 hours and 10 minutes and run in again in 1 hour 50 minutes, a good performance for any rig.

While the hole is not completed to the objective formation, still enough work has been done to thoroughly demonstrate the advantages of this type powered rotary outfit and after this well is completed the owners will move it to another location immediately, regardless of local conditions at the next well, for the performance at No. 1 B. Baker is enough to prove the economy of drilling with this assembled outfit.



Layout of Diesel engine power plant with relation to other equipment on rig at Phillips Petroleum Co.'s No. 1 B. Baker, Cleveland County, Oklahoma

More Optimism Evident in Chicago; Buying Is Lower

(Continued from Page 31)

with refiners for shipment after September 1. Currently the market appears quite firm and some carlot marketers are trying to buy the better grades. Consumer contracts have been signed moderately well.

Kerosene

Kerosene is holding its own quite well, and is not overly plentiful here now. It is staying above the 3-cent level without difficulty, despite certain restrictions in demand. Stocks are not proving very burdensome.

Industrial Products

Industrial fuels and gas oils are still marking time, which is quite natural in view of the backward industrial situation generally. Prices are about where they have been for some time past.

Wax

Wax is still strong and subject to continuing good demand, especially for the better grades.

Coke

Petroleum coke shows little feature, but is expected to come into better interest shortly.

Lubricants

Lubricating oils, while still quiet, now seem to be on a more nearly secure price basis than in some time. Few compounders or jobbers are buying actively, but sellers believe the recent downward price movement has been definitely halted.

Naphthas

Solvents and naphthas continue quiet, but they are quite firm and the demand is regarded as being sufficient to hold them about where they are.

BURNER MEN MEET

CHICAGO, Aug. 27.—A large group of representatives of oil burner manufacturers, burner dealers, heating oil distributors and burner equipment concerns met at the Hamilton Club, Chicago, Wednesday evening, August 22, for a dinner meeting to discuss plans for promotion of oil heating in the coming heating season. It was the first time such a co-operative meeting of oil heating interests ever had been held here. It was announced that a limited good will and publicity campaign would be undertaken in the near future, including the distribution of a folder by all interested companies detailing the advantages of automatic heating from the oil angle, and also the co-operative use of identical banners for heating oil trucks. Major oil companies and independent distributors in large numbers in the Chicago district are expected to co-operate.

GAS REFEREE APPOINTED

TORONTO, Ontario, Aug. 25.—F. H. Honeywell of Ottawa has been appointed drainage referee and natural gas referee for Ontario, succeeding G. F. Henderson, K.C. Mr. Henderson was given ratefixing jurisdiction over the natural gas industry about 10 years ago, after serving for a long time as Ontario drainage referee. He has been in poor health for a considerable time.

GULF SOCIAL CLUB

GREENSBORO, N. C., Aug. 25.—Employes of the Gulf Refining Co. of Greensboro have organized a social unit to be known as the Gulf Service Club.

East Central Texas Wildcats

(Continued from Page 40)

HOPKINS COUNTY

D. A. Hale et al's No. 1 L. M. Hall, 990 ft. from N and E lines of 76-ac. tract, 1 mile SE of Miller Grove, A. Caro Sur
S.D. 640 ft.

HUNT COUNTY

G. S & S. Co.'s No. 1 O. Popper.
Coring 2,320 ft.

L. G. Priest's No. 1 Amelia Barnett, 1,075 ft. from W line, 320 ft. from S line of J. C. Hamer Sur.
Set surface pipe 300 ft.

KAUFMAN COUNTY

W. J. Lewis et al's No. 1 D. Clark, 430 ft. from S line and 600 ft. from E line of Sur., 6½ miles NW of Elmo.
S.D. 600 ft.

LAMAR COUNTY

Cole et al's (formerly Optometrist Oil Club) No. 1 J. M. McFaddin, 450 ft. from S and W lines of E 25-ac. tract, 10 miles NW of Paris, Joseph Dick Sur.
S.D. 2,506 ft.

LEON COUNTY

Kellough and Tucker's No. 1 G. B. Young, 330 ft. from S line and 330 ft. from W line of 100-ac. tract, 4 miles SE of Long Lake, J. M. Boone Sur.
Fishing 3,950 ft.

Normangee Corp.'s (W. C. Battaile et al) No. 1 B. H. Henry, 1,850 ft. from E line and 2,700 ft. from N line of survey, Robert Rogers League, 2½ miles NE of Normangee.
Spudded and S.D.

LIMESTONE COUNTY

Foster's No. 1 C. O. Wright, 200 ft. N of S line, 125 ft. W of E line of 2-ac. tract, 2 miles S of Wortham, Sarah McAnulty Sur.
S.D. 1,365 ft.

Hall Edwards et al's No. 1 W. W. Simms, 330 ft. from S and E lines of 160-ac. tract, 8 miles E of Thornton, J. S. Chavert Sur. Location.

Peyton Bros.' No. 1 Stubenrach, 870 ft. NW from SE line, 1,170 ft. SW of NE line of 346.39-ac. tract, P. Varela Sur.
Drlg. 5,175 ft.

Schultz' No. 1 Roy Warl, NE cor. of 73.3-ac. tract, 5 miles W of Mexia Field, Harrison York Sur.
Rebuilding rig.

Ernest Thompson et al's (formerly C. C. Curtis) No. 1 Emma Daniels, 150 ft. from S and W lines of 41.5-ac. tract, Pedro Varela Sur.
Working over old well; old T.D. 2,950 ft.

MORRIS COUNTY

McGinnis et al's No. 1 Staggers, 800 ft. from S line of survey and 150 ft. from W line of lease, J. B. Nelson Sur.
Rig collapsed; T.D. 3,820 ft.

NACOGDOCHES COUNTY

Murray Oil Co.'s No. 1 C. B. Watkins, 150 ft. from N line and 330 ft. from NW lines of 160-ac. tract, 3 miles S of Caro, H. Y. Bailey Sur.
Washing to bottom; T.D. 2,785 ft.

J. W. Rich and others' No. 1-A R. W. Haslewood, 5,450 ft. from S line and 2,800 ft. from W line of survey, 50 ft. N of No. 1, 15 miles SW of Nacogdoches Ewing Sur.
S.D. for surface csg.

NAVARRO COUNTY

Bennett Brothers' No. 1 T. E. Stewart, 150 ft. from NE L of lease, 10 miles SW of Corsicana, Wm. R. Bowen Sur.
Set surface csg. 1,170 ft.

R. B. Codding et al's No. 1 Lela Kelt, 450 ft. from S line and center of N and S lines of lease, 3 miles NE of Chatfield, C. B. Emmons Sur.
Old T.D. 1,140 ft.; drlg. 1,245 ft.

W. J. Keeling et al's No. 1 J. F. Rushing, 484 ft. from N line and 150 ft. from W line of 184-ac. tract, 6 miles SW of Richardson, Henry Ford Sur.
Drlg. 2,460 ft.

C. McClothlin et al's No. 1 R. E. L. Knight, 3,400 ft. along S line of survey from river or SE cor. and 330 ft. N at R/A on 997-ac. tract, 3 miles W of Trinidad, C. Armstrong Sur.
Location.

McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 35-ac. tract, 1 mile W of Dawson, William Moss Sur.
S.D. 626 ft.

Wheelock and Collins' No. 1 L. N. Cert, 375 ft. from N line of lease and 1,050 ft. from W line of lease, James Smith Sur. No. 726.
Set 9⅝-in. pipe at 4,343 ft.; T.D. 5,335 ft.

RAINES COUNTY

Wadley et al's No. 1 P. F. Jones, 400 ft. out of SW cor. of 22-ac. tract, 2½ miles S of Alba, B.B.B.&C. Sur.
T.D. 4,730 ft.

RED RIVER COUNTY

Cornell and Spear's No. 1 E. H. Thompson, 664 ft. from S and 1,062 ft. from W of NE cor. of 384-ac. tract, E. Smith Sur.
S.D. 1,072 ft.

RUSK COUNTY

Headwater Oil Co.'s No. 1 F. L. Gary, 375 ft. N of S line and center of E and W lines of 200-ac. tract, 3 miles E and S of Henderson, Jose A. Mora Sur.
S.D. 3,197 ft.

George Hudson et al's No. 3 Jeff Phillips, 150 ft. from N line of survey and 700 ft. from W line of 100-ac. tract, 4 miles SE of Minden, N. Villaria Sur.
To swab csg.; T.D. 3,673 ft.

Kelly Harris' No. 1 T. W. Harris, 700 ft. from E line, 300 ft. from N line of N 80-ac. tract, 2½ miles SW of Henderson, Davis Sur.
Set surface csg. at 150 ft.

SMITH COUNTY

Fair et al's No. 1 Rushing, 1,000 ft. SE of old hole, 1½ miles SE of Whitehouse.
Spudded.

UPSHUR COUNTY

Virgil Hodges et al's No. 1 J. M. Floyd, 330 ft. from NE cor. of 126-ac. tract, 4 miles N of Gladewater, Railroad Sur.
S.D. 2,700 ft.

Lanier and Moore's No. 1 Vaughan, 330 ft. from S line and 330 ft. from W line of 100-ac. tract, 2 miles NW of Big Sandy, P. W. Standifer Sur.
S.D. 1,042 ft.

Joe Papadika's No. 2 Tourney, 100 ft. due W of No. 1.
S.D. 3,750 ft.

VAN COUNTY

Humble O. & R. Co.'s No. 7 Carroll.
Dry and abd. 2,933 ft.

VAN ZANDT COUNTY

W. E. Brown's No. 1 Bank of Edgewood, 560 varas from SW cor. of H. M. Lead Sur., M. B. Lout Sur.
S.D. 2,791 ft.

Van Zandt Synd.'s No. 1 C. S. Coker, 150 ft. out of SW cor. 55-ac. tract, William Daniel Sur.
S.D. 1,208 ft.

Gillum and Allen et al's No. 1 A. T. Bass, 150 ft. from W line and 150 ft. from N line of 10-ac. tract, William Hart Sur.
S.D. 4,260 ft.

Markin & Evens' No. 1 L. M. Palmer, 850 ft. E of W line and 150 ft. N of S line of 69.8-ac. tract, one-tenth mile E of Pruitt, Nacogdoches County School Land Sur.
Bailing 1,305 ft.; slight show of oil.

Miller et al's No. 1 J. M. Palmer, 150 ft. from S and E lines of 69-ac. tract, Nacogdoches County School Land Sur.
S.D. 610 ft.

Peden and Olson's No. 1 J. M. Palmer, 300 S of No. 2 and 140 ft. from W line of tract, J. Goodman Sur.
S.D. 1,270 ft.

Pure Oil Co.'s No. 1 R. H. Peters, 200 ft. S of N line, 230 ft. W of E line, of 7-ac. lease, Nacogdoches County School Land Sur.
Location.

Pure Oil Co.'s No. 3 Frank Blackstock, 720 ft. S of N line and 665 ft. E of W line of Frank Blackstock 40-ac. tract, John Walling Sur.
S.D. 2,785 ft.

Pure Oil Co.'s No. 7 Shirley, 727 ft. S of N line, 225 ft. W of E line, Walling Sur.
Location.

Pure Oil Co.'s No. 12 A. R. Tunnell, 224 ft. S of N line, 225 ft. W of S line, Wallace 34.7-ac. tract, John Walling Sur.
Set csg. 311 ft.

Pure Oil Co.'s No. 10 N. E. Clark, 934 ft. S of W line, 1,058 ft. N of S line of N. E. Clark and J. R. Houston 94.5-ac. tract, J. Prado Sur.
Set csg. 2,503 ft.

Pure Oil Co.'s No. 3 W. F. Swain, 700 ft. S of N line, 300 ft. E of W line, John Walling Sur.
Derrick.

Wheelock et al's No. 1 Cade, 180 ft. from S line and 150 ft. from E line of 20-ac. tract, Nacogdoches County School Land Sur.
S.D. 1,265 ft.

WOOD COUNTY

Alex Snyder et al's No. 1 T. Holmes, 200 ft. out of NE cor. of 122-ac. tract, 1¼ miles SE of Hawkins, A. N. McKnight Sur. 299.
S.D. 4,200 ft.

West Texas Wildcats

(Continued from Page 39)

ft. from SL, Sec. 6, Blk. 44, Twp. 3s, T.&P. Sur.
Drlg. 1,154 ft.

Skelly Oil Co.'s No. 1 Scarborough, 617 ft. from S and 660 ft. from E, Sec. 26, Blk. B-15, P.S.L. Sur.
Material.

Skelly Oil Co.'s No. 5-A University, 660 ft. from N and 1,980 ft. from E, Sec. 1, Blk. 35, University Sur.
Drlg. 1,020 ft.

Stanolind Oil & Gas Co.'s No. 7 J. M. Cowden, 440 ft. from S line and 2,313 ft. from W line, Sec. 34, Blk. 43, Twp. 1n, T.&P. Sur.
Drlg. 3,810 ft.

Stanolind Oil & Gas Co.'s No. 8 J. M. Cowden, 440 ft. from S line and 440 ft. from W line, Sec. 34, Blk. 43, Twp. 1n.
Cellar and pits.

Stanolind Oil & Gas Co.'s No. 9 J. M. Cowden, 440 ft. from S line and 2,240 ft. from E line, Sec. 34, Blk. 43, Twp. 1n, T.&P. Sur.
Location.

Stanolind Oil & Gas Co.'s No. 4 E. F. Cowden, 1,900 ft. from S line and 460 ft. from W line, Sec. 36, Blk. 43, Twp. 2s, T.&P. Sur.
Testing csg. 3,895 ft.

Sun Oil Co.'s No. 1 Wight, 2,200 ft. from S line, 440 ft. from W line, Sec. 2, Blk. 41, Twp. 1s, T.&P. Sur.
Crooked hole 1,200 ft.

Texas Co.'s No. 10 W. E. Connell, 2,310 ft. from E line and 330 ft. from the S line of Sec. 1, Blk B-16, P.S.L. Sur.
T.D. 3,700 ft.; shot; no gauge.

Fred Turner's No. 2-A Adams, 2,310 ft. from N and 440 ft. from E of Sec. 35, Blk. 41, Twp. 2s, T.&P. Sur.
Cellar.

EL PASO COUNTY

Mesa Oil Co.'s No. 1 Coronado Valley.
Reaming 920 ft.

FISHER COUNTY

Condor Pet. Co.'s No. 2 Wilson, 640 ft. from N and 2,310 ft. from W line of Sec. 4, Blk. R. W. E. Richardson Sur.
Underreaming; T.D. 2,715 ft.

Stanolind Oil & Gas Co.'s No. 5 Steele, 1,170 ft. from S and 990 ft. from W line of Sec. 210, Blk. 1, B.B.B.&C. Sur.
S.D. 3,187 ft.

Texas Co.'s No. 3 Daniels, 330 ft. from N and W, Sec. 194, Blk. 1, B.B.B.&C. Sur. Rotary.

Texas Co.'s No. 1-B Teagarden, 990 ft. from S and 330 ft. E of NW cor. of S half of Sec. 9, Blk. 4, W. E. Richardson Sur.
S.D. 3,158 ft.
Texas Co.'s No. 1 First National Bank of Rotan, 330 ft. N and E of the NW cor. of Sec. 210, B.B.B.&C. Sur.
Fishing 2,250 ft.

GLASSCOCK COUNTY

Steve Currie et al's No. 1 Underwood, 660 ft. from N line and 660 ft. from E line of Sec. 24, Blk. 3, Twp. 4s, T.&P. Sur.
S.D. 3,420 ft.
John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P. Sur.
Reaming to 3,600 ft.; T.D. 3,866 ft.
John I. Moore's No. 1 Hubbard, 660 ft. from E line, 660 ft. from S line, Sec. 16, Blk. 34, Twp. 5s, T.&P. Sur.
Drlg. 2,610 ft.
Shell Pet. Corp.'s No. 4 Hart Phillips, 2,310 ft. from N line and 660 ft. from E line, Sec. 22, Blk. 33, Twp. 2s, T.&P. Sur.
T.D. 2,345 ft.; to pump.
Simms Oil Co.'s No. 1 McDowell, 1,650 ft. from N line, 2,310 ft. from W line, Sec. 19, Blk. 33, Twp. 2s, T.&P. Sur.
S.D. 3,155 ft.

HOWARD COUNTY

Fuglarr & Patterson's No. 1 Hyman, 330 ft. from S line and 330 ft. from W line of Sec. 19, Blk. 29, W.&N.W. Sur.
Prep. to pump; T.D. 1,326 ft.
California Oil Co.'s No. 1 A. M. Bell, 465 ft. from W line and 1,915 ft. from E line of Sec. 12, Blk. 30, Twp. 1s, T.&P. Sur.
T.D. 2,311 ft.; pumping.
California Oil Co.'s No. 1 Dodge, 1,915 ft. from E line and 465 ft. from S line of Sec. 1, Blk. 30, T.&P. Sur.
Drlg. 2,790 ft.; flowing.
Continental Oil Co.'s No. 11 Settles, 330 ft. from NL, 2,310 ft. from WL, Sec. 33, Blkk. 29, W.&N.W. Sur.
Drlg. 1,250 ft.
Eastland Oil Co.'s No. 2 Chalk 2,310 ft. from SL, 990 ft. from WL, Sec. 125, Blk. 29, W.&N.W. Sur.
Drlg. 800 ft.
Humble Oil & Ref. Co.'s No. 5 Settles, 2,310 ft. from EL, 330 ft. from SL, Sec. 135, Blk 29, N.&N.W. Sur.
T.D. 2,360 ft.; T.P. 2,270 ft.; acidized.
L. C. Harrison et al's No. 3 Texas Land & Mortgage Co., 2,310 ft. from E line and 330 ft. from the S line of Sec. 4, Blk. 30, Twp. 1s, T.&P. Sur.
Derrick.
Illinois Oil Co.'s No. 1 Logan, 990 ft. from NL, 2,310 ft. from EL, Sec. 2, Blk. 30, Twp. 1s, T.&P. Sur.
Set csg. 738 ft.
Iron Mountain Oil Co.'s No. 1 Read, 330 ft. from E line, 330 ft. from S line, Sec. 46, Blk. 30, Twp. 1n, T.&P. Sur.
Drlg. 520 ft.
Merrick & Lamb's No. 18 Clay, 990 ft. from EL, 2,310 ft. from SL, Sec. 126, Blk. 29, W.&N.W. Sur.
Drlg. 920 ft.
Phillips Pet. Co.'s No. 1 Davis, 990 ft. from E and 2,310 ft. from S line, Blk. 30, Twp. 1s, T.&P. Sur.
Fishing 1,420 ft.

IRION COUNTY

Melrose Oil Co.'s No. 1 J. D. Sugg, 1,700 ft. from the E line and 308 ft. from the S line of Sec. 25, Blk. 2, H.&T.C. Sur.
Spudded and S.D.
Williams-Short's No. 1 Gentry, 2,300 ft. from N line and 2,080 ft. from W line of Sec. 1, Blk. 3, H.&T.C. Sur.
S.D. 1,450 ft.

JONES COUNTY

Clifton & Brazelton et al's No. 1 Cassey, 200 ft. from N and W lines of SE cor. of Sec. 15, Blk. 15, T.&P. Sur.
S.D. 800 ft.
Guthrie & Lancaster's No. 1-B Campbell, 330 ft. from N and 2,276 ft. from E line of Sec. 15, Blk. 19, T.&P. Sur.
Drlg. plug 3,536 ft.
John Byram et al's No. 1 P. Jones, 200 ft. from S and 660 ft. from W of NW. Sec. 5, Blk. 15, T.&P. Sur.
Machine.
Richards et al's No. 1 Ransom, 200 ft. from N and E, Sec. 244, B. M. Clopton Sur.
Location.
Texas Inland Oil Co.'s No. 1 Boaz, 330 ft. from N and W of N 311 acres of S 611 acres, John Wall Sur. No. 275.
Spudding.

LOVING COUNTY

Harry Adams' No. 3-A Reagan and McElvain, 990 ft. from SE line, 1,650 ft. from SW line, Sec. 84, Blk. 1, W.&N.W. Sur.
Drlg. 2,890 ft.
D. C. Evans' No. 1 W. D. Johnson, 2,310 ft. from N and 1,650 ft. from W, Sec. 13, Blk. 57, Twp. 1, T.&P. Sur.
10-in. csg. at 421 ft.
H. W. Martin's No. 4 Wheat, Ramsey, 990 ft. from SE and SW lines of Sec. 83, Blk. 1, W.&N.W. Sur.
T.D. 4,234 ft.; P.B. to 4,214 ft.; C.O.
J. F. Slack's No. 1 Covey, 2,310 ft. from NE line and 330 ft. from SE line of Sec. 3, Blk. 3, W.&N.W. Sur.
Drlg. 4,155 ft.

PECOS COUNTY

California Oil Co.'s No. 24 Hates, 180 ft. from E line and 20 ft. from S line, Sec. 34, Blk. 194, G.C.&S.F. Sur.
Drlg. 600 ft.
Cardinal Oil Co.'s No. 17-E Tippett, 150 ft. from E line of W half and 730 ft. from N of No. 5-B, Sec. 40, Blk. 194, G.C.&S.F. Sur.
S.D. 484 ft.
Humble Oil & Ref. Co.'s No. 2 White & Baker, 1,320 ft. from N line and 1,320 ft. from E line, Sec. 4, Blk. 179, T.C.R.R. Sur.
Csg. 738 ft.
Illinois Oil Co.'s No. 2 University, 330 ft. from E line and 960 ft. from S line, Sec. 31, Blk. 24, University Land Sur.
S.D. 1,500 ft.
C. E. Messenger's No. 2 Rand Jones, 1,935 ft. from S line and 1,613 ft. from W line of Sec. 5, Blk. 9, H.&G.N. Sur.
S.D. 1,510 ft.
Mid-Kansas Oil & Gas Co.'s No. 25 Smith-Taylor, 344 ft. W of SE cor. of S half of Turner Tract No. 1, Sec. 33.
S.D. 750 ft.
Mid-Kansas Oil & Gas Co.'s No. 1 Turner, 350 ft. from N line and 350 ft. from W line of Turner Sur. No. 1.
S.D. 590 ft.
Mid-Kansas Oil & Gas Co.'s No. 43-A Yates, 990 ft. from N line and 1,356 ft. from W line, Sec. 34½, I. G. Yates Sur.
Csg. at 1,202 ft.
Pecos Prod. Co.'s No. 1 Green & Ogden, 330 ft. from S and 159 ft. from W of vacancy strip on E side of Sec. 104, T.C. Sur.
Cellar.
Shell Pet. Corp.'s No. 2-D University, 2,-310 ft. from S line, 660 ft. from W line, Sec. 32, Blk. 16, University Sur.
Acidized 1,626 ft.
Tex-Mex Pet. Co.'s No. 1 Netterville, 5,610 ft. from S and 330 ft. from W of Sec. 59, Blk. 8, H.&G.N. Sur.
Making gas with light spray of oil; fishing for tools; T.D. 2,210 ft.
Trans-Texas Oil Co.'s No. 1 Caldwell, 330 ft. from E line and 330 ft. from S line of Sec. 27, Blk. 40, Twp. 9, T.&P. Sur.
Fishing 1,100 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 15-C University, Sec. 12, Blk. 2.
T.P. 8,341 ft.; drlg. 8,360 ft.
E. P. Kirschner and White's No. 1 W. A. White and McIntosh, 720 ft. from E and 800 ft. from N of Sec. 1,223, E.L.R.R. Sur.
S.D. 3,166 ft.
Skelly Oil Co. et al's No. 1-D H. S. Grayson, 1,980 ft. from N line and 660 ft. from W line of Sec. 32, Blk. 8, University Land Sur.
Testing hole 530 ft.

REEVES COUNTY

J. E. Cunningham's No. 1 Altman, 2,310 ft. from N line and 1,980 ft. from E line of Sec. 1, C. C. Wyatt Sur.
T.D. 600 ft.; underreaming csg.
Grisham & Hunter Corp.'s No. 1-A fee, 1,320 ft. from N line and 1,470 ft. from E line, Sec. 1, Blk. 50, Twp. 8, T.&P. Sur.
Drlg. 4,610 ft.
Hugo Freels' No. 1 B. Greenman, 330 ft. from NE line and 231 ft. from SE line of Sec. 21, Blk. 2, H.&G.N. Sur.
Shot 220 qts. from 3,778-3,930 ft.; no results; S.D.; T.D. 3,985 ft.

RUNNELS COUNTY

Agnew and Currie's No. 1 H. E. Wade, 2,640 ft. from N line and 330 ft. from E line of Sec. 24, Domingo Diaz Sur. No. 532.
Drlg. by bailer 2,079 ft.
Daniel et al's No. 1 W. F. James, 330 ft. from N and W lines of Subdiv. No. 30, Norvell Travis Sur.
S.D. 1,410 ft.
Melrose Oil Co.'s No. 1 L. P. Woods, 150 ft. from NE lines and 2,475 ft. from W line of survey, Willett Holmes Sur. No. 100.
To set csg. 1,429 ft.

SCHLEICHER COUNTY

John M. Cooper et al's No. 1 Bert Page, 1,290 ft. from N line, 1,470 ft. from W line of Sec. 40, Blk. L, G.H.&S.A. Sur. (old well being drilled deeper).
To use acid; T.D. 5,836 ft.
Humble Oil & Ref. Co.'s No. 1 Ike Honig, 2,640 ft. from N line and 2,650 ft. from E line of Sec. 35, Blk. M, G.H.&S.A. Sur.
Drlg. 1,020 ft.

SCURRY COUNTY

Paul C. Teas' No. 1 Chapman, 660 ft. from S and 660 ft. from W, Sec. 100, Blk. 9, H.&T.C. Sur.
To pump; acidized.

TERRELL COUNTY

W. A. Sudderth's No. 1 Phelps, 2,157 ft. from N line and 2,482 ft. from the W line of Sec. 5, Blk. 4-A, G. W. Turley Sur.
S.D. 5,625 ft.

TOM GREEN COUNTY

Southwest Exploration Co.'s No. 1 Bennett, 1,320 ft. from S and 1,320 ft. from W of Section 1,628, Behringer Sur.
Drlg. 3,570 ft.

UPTON COUNTY

Broderick & Calvert's No. 1 Homer Trust & Savings Bank, 1,980 ft. from N line, 660 ft. from W line, Sec. 23, Blk. B-42, Twp. 4s, T.&P. Sur.
Drlg. 3,055 ft.
Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G. Sur.
Drlg. 10,715 ft.
Perry & Breeding's No. 1 Lane, 1,650 ft. from S line and 990 ft. from E line of Sec. 36, Blk. 1, M.K.&T. Sur.
Drlg. 1,060 ft.
Stanolind Oil & Gas Co.'s No. 23 Burleson, 1,650 ft. from N line, 1,650 ft. from E line, Sec. 2, Nidever Sur.
Location.
Thesbotal Oil Co.'s No. 2 J. F. Lane, 1,650 ft. from N and 990 ft. from E of Sec. 36, Blk. 1, M.K.&T. Sur.
S.D. 2,266 ft.
Williams & Williams Drlg. Co.'s No. 1 Robbins, 1,600 ft. from S and 1,900 ft. from E, Sec. 4, G.C.&S.F. Sur.
Drlg. by tools 2,037 ft.

VAL VERDE COUNTY

South-Western Exploration Co.'s No. 1 E. E. Fawcett, 2,310 ft. from S and 2,310 ft. from E, Sec. 14, Blk. L, G.C.&S.F. Sur.
Rig up.

WARD COUNTY

Atlantic Oil & Prod. Co.'s No. 3 Barrow, 2,310 ft. from NE line and 990 ft. from NW line of Sec. 22, Blk. 5, H.&T.C. Sur.
T.D. 2,665 ft.; P.B. Testing.
Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 27, Blk. 34, H.&T.C. Sur.
S.D. 1,500 ft.
Bradford et al's No. 1 E. R. Allen, 660 ft. from NW line and 561 ft. from NE line, Sec. 11, H.&T.C. Sur.
Machine.
California Oil Co.'s No. 12 York, 1,650 ft. from SE line and 2,310 ft. from SW line, Sec. 10, Blk. 34, H.&T.C. Sur.
S.D. 2,237 ft.
California Oil Co.'s No. 7 Durgin, 330 ft. from NW line, 2,310 ft. from SW line, Sec. 15, Blk. 34, H.&T.C. Sur.
Testing 2,555 ft.
California Oil Co.'s No. 9 Durgin, 330 ft. from SE line and 2,310 ft from SW line, Sec. 15, Blk. 34, H.&T.C. Sur.
Drlg. 2,550 ft.
California Oil Co.'s No. 10 Durgin, 2,310 ft. from SE line, 330 ft. from SW line, Sec. 15, Blk. 34, H.&T.C. Sur.
Material.
C. C. Duffey et al's No. 1 Llano-Sloan, 1,650 ft. from NW and NE lines of Sec. 24, H.&T.C. Sur.
Drlg. 2,915 ft.; oil 2,590 ft.
Eppenauer Drlg. Co.'s No. 1-B Combs, 488 ft. from SE and 1,826 ft. from SW, Blk. 4, J. W. Hollingsworth Sur.
S.D. 3,260 ft.
Ferrell & Co.'s No. 5 Pure-Bennett, 330 ft. from NE line, 2,310 ft. from SE line, Sec. 16, Blk. 34, H.&T.C. Sur.
S.D. 2,231 ft.
Gulf Production Co.'s No. 32 Hutchins, 990 ft. from N line, 990 ft. from W line, Sec. 4, Blk. F, G.&M.M.B.&A. Sur.
Drlg. 3,110 ft.
Gulf Prod. Co.'s No. 50 O'Brien, 990 ft. from E line, 330 ft. from S line, Sec. 17, Blk. F, G.M.M.B.&A. Sur.
Drlg. 2,375 ft.
Plains Prod. Co.'s No. 1 J. J. McGregor, 660 ft. from SE line, 660 ft. from SW line, Sec. 169, Blk. 34, H.&T.C. Sur.
Rig.
Postellio & Caprito's No. 1 Purcell, 330 ft. from NE and 990 ft. from NW, Sec. 17, Blk. 34, H.&T.C. Sur.
Rig up and S.D.
Sid Richardson's No. 4-B W. D. Johnson, 990 ft. from NE line, 330 ft. from SE line, Sec. 22, Blk. 34, H.&T.C. Sur.
Drlg. 2,315 ft.; gas 2,270 ft.
Rogers & Graham's No. 1 J. C. Wells, 330 ft. from SE and 603 ft. from SW, Sec. 19, Blk. 34, H.&T.C. Sur.
Drlg. 1,960 ft.
Sageland Oil Corp.'s No. 2 Pure-Bennett, 1,650 ft. from NW and 2,310 ft. from SW, Sec. 16, Blk. 34, H.&T.C. Sur.
Spudded and S.D.
Tex-Mex Pet. Corp. et al's No. 3 Llano-Owens, 1,650 ft. from NW line and 2,310 ft. from SW line, Sec. 14, Blk. 5, H.&T.C. Sur.
Show oil 2,590 ft.; csg. set 2,600 ft.

WINKLER COUNTY

Harry Adams' No. 2 Scarborough, 990 ft. from N line and 990 ft. from W line, Sec. 2, Blk. 77, P.S.L. Sur.
Location.
Magnolia Pet. Co.'s No. 6 Scarborough, 1,650 ft. from S line and 330 ft. from W line of Sec. 4, Blk. 22-C, P.S.L. Sur.
Drlg. by bit 2,970 ft.
Magnolia Pet. Co.'s No. 7 Scarborough, 1,650 ft. from N line and 990 ft. from E line of Sec. 18, Blk. 7, P.S.L. Sur.
T.P. 2,855 ft.; drlg. 2,900 ft.
R. S. Mathews et al's No. 1 Evans, 1,320 ft. from N line and 1,320 ft. from W line, Sec. 46, Blk. 78, P.S.L. Sur.
S.D. 110 ft.
Sid Richardson's No. 1 Hill, 1,980 ft. from E line, 660 ft. from S line, Sec. 18, Blk. B-11, P.S.L. Sur.
Rigged up.
Sid Richardson's No. 2-B Tidal-Scarborough, 1,005 ft. from S line, 990 ft. from W line, Sec. 4, Blk. C-22, P.S.L. Sur.
Set csg. 1,175 ft.
Sid Richardson's No. 3-B W. D. Johnson, 330 ft. from SE and 2,310 ft. from SW, Sec. 22, Blk. 34, H.&T.C. Sur.
Location.
Sid Richardson's No. 5-A Scarborough, 330 ft. from W and 190 ft. from S, Sec. 1, Blk. 22-C, P.S.L. Sur.
Machine.
Sayre Oil Co.'s No. 1 Howe, Sec. 12, Blk. 26, P.S.L. Sur.
Drlg. by lost bit.
Skelly Oil Co.'s No. 1 Holley, Sec. 25, Blk. B-11, P.S.L. Sur.
Drlg. 3,010 ft.

Texas Panhandle Wildcats

Week Ending August 27

CARSON COUNTY

Empire Gas & Fuel Co.'s No. 1 C. S. Seiber, 1,326 ft. from E line, 330 ft. from S line of SD Sec. 10, Blk. 7, T.&G.N. Sur.
T.P. 3,220 ft.; T.D. 3,239 ft.; flowing.
Stanolind O. & G. Co.'s No. 3 L. C. McConnell, 330 ft. from N line, 330 ft. from W line, E½ SW Sec. 187, Blk. 3, I.&G.N. Sur.
Fishing 3,065 ft.
Texas Interstate P. L. Co.'s No. 1 Burnett, C N½ Sec. 79, Blk. 5, I.&G.N. Sur.
Rig.

CHILDRESS COUNTY

Humble Oil & Ref. Co.'s No. 1 B. P. Smith, 1,327 ft. from S line and 1,327 ft. from E line of Sec. 27, H.&G.N. Sur., Blk. 9.
Drlg. 4,090 ft.

DALLAM COUNTY

Eben Warner's No. 1 Jarbie, 1,650 ft. from S line, 415 ft. from W line, Sec. 2, B.&B. Sur.
S.D. 1,200 ft.

GRAY COUNTY

Dixon Creek Oil Co.'s No. 1 Benedict, 330 ft. from S and 330 ft. from W, Sec. 114, Blk. 2, I.&G.N. Sur.
Standardizing 3,027 ft.
Johnson et al's No. 1 Thut, 330 ft. from N and 150 ft. S of S. A. Sweig.
S.D. 2,905 ft.
Napa Oil Corp.'s No. 1 Cole, 330 ft. from S and 330 ft. from W, Sec. 104, Blk. 3, I.&G.N. Sur.
T.D. 3,321 ft. Plugged back to 3,300 ft. Cleaning out.
Southwest Prod. Co.'s No. 1 T. Cobb, 1,320 ft. from S line, 990 ft. from E line, NE Sec. 134, Blk. 3, I.&G.N. Sur.
S.D. 2,680 ft.
Texwell Oil Co.'s No. 1 J. C. McConnell, 330 ft. from S line, 330 ft. from W line, SW SW Sec. 174, Blk. 3, I.&G.N. Sur.
T.D. 3,325 ft.; pumped 25 bbls. in 14 hrs.

HUTCHINSON COUNTY

Brownie Oil Co.'s No. 1 Ware, 330 ft. from N and 330 ft. from W, Sec. 124, Blk. 4, I.&G.N. Sur.
Set csg.; T.D. 1,183 ft.
Huey et al's No. 1 Christian, 330 ft. from S and 330 ft. from W, Sec. 33, Blk. Y, A.&B. Sur.
Drlg. 440 ft.
Phillips Pet. Co.'s No. 3 A. Yake, 7,553 ft. from N line, 330 ft. from W line, Sec. 36, H.&T.C. Sur., Blk. 47.
S.D. 2,608 ft.
Stanolind O. & G. Co.'s No. 4-C Ware, 330 ft. from N line, 1,650 ft. from W line, Sec. 20, Blk. M-21, T.C.R.R. Sur.
Drlg. 1,500 ft.
Texas Co.'s No. 1 W. E. Herring, 1,300 ft. from E line, 1,300 ft. from N line of W 1,594 acres of the E. Almaguire Sur.
T.D. 3,264 ft.; P.B. to 3,177 ft.; treated.

KNOX COUNTY

C. C. Christie's No. 1 Moore, Sec. 67, Blk. 45, H.&T.C. Sur.
Location.

MOORE COUNTY

Phillips Pet. Co.'s No. 2 J. C. Wilson, Sec. 157, Blk. T-3, T.&N.O. Sur.
Drlg. 5,600 ft.

WHEELER COUNTY

Bowers & Carvers' No. 1 L. B. Sims, 330 ft. from N line, 330 ft. from E line of SW SE Sec. 60, Blk. 17, H.&G.N. Sur.
Csg. at 1,630 ft.
Carver Drilling Co.'s No. 1 Rock Island, 1,650 ft. from SL, 2,310 ft. from WL, Sec. 47, Blk. 13, H.&T.C. Sur.
Cellar.
Christie-Hickman's No. 1 Walker, 330 ft. S and E of NE Sec. 49, Blk. 24, H.&G.N. Material.
Dyke Oil Co.'s No. 1 G. W. Sitter, 330 ft. from N line, 330 ft. from E line, N½ NW Sec. 28, Blk. 24, H.&G.N. Sur.
S.D. 1,230 ft.
Ben G. Barnett No. 1 Boren, NW cor. NE Sec. 34, Blk. 13, H.&G.N. Sur., 11 miles E and S of Shamrock.
S.D. 1,010 ft.
LeFors Pet. Corp.'s No. 1 Perkins, 330 ft. from S line, 330 ft. from W line, Sec. 54, Blk. 24, H.&G.N. Sur.
Rig up.
Myers & Kennedy's No. 1 Harvey, 660 ft. from S and E lines of NW Sec. 67, Blk. 13, H.&G.N. Sur.
T.D. 2,285 ft.; to plug back.
Piney O. & G. Co.'s No. 1 Rippey, C NE Sec. 128, Blk. 33, H.&G.N. Sur.
Rig up.
Reno Oil Co.'s No. 1 Mankins, SW SE SE Sec. 54, Blk. 13, H.&G.N.
Drlg. 1,400 ft.
Smith Bros.' No. 1 Williams, 330 ft. N and E, W½ SE Sec. 49, Blk. 24, H.&G.N. Location.
Smith Bros.' No. 1 A. Plummer, 330 ft. from N line, 330 ft. from E line, N½ SW Sec. 46, Blk. 24, H.&G.N. Sur.
Flowed 250 bbls. in 24 hrs.; T.D. 3,530 ft.

Southwest Texas Wildcats

(Continued from Page 38)

GILLESPIE COUNTY

Ed L. Nixon's No. 3 Lindig, 12,694 ft. S line, 1,333 ft. W line, Maria Josepha Guerra Sur. No. 41, or 6 ft. S of No. 1.
Drlg. lime 365 ft.

GOLIAD COUNTY

Duval Oil Corp.'s No. 1 Lucy Borden, 330 ft. NE cor. of 124-ac. tract in Alberto Guitterez Sur., 1½ miles W of Charco.
Location.
Oceanic Pet. Co.'s No. 1 Fromme, 1,500 ft. S line, 1,200 ft. W line of 62-ac. tract in P. D. Dexter Sur., 10 miles N of Goliad.
T.D. 2,655 ft.; derrick down.

GONZALES COUNTY

Weinert et al's No. 1 A. Keilles, 3,240 ft. S line and same N of river and 150 ft. E line of tract, Ira Nash Sur.
Derrick.

GUADALUPE COUNTY

Diamond Half Oil Co.'s No. 1 E. A. Ball, 3,000 ft. NE line and 3,500 ft. SE line of L. H. Peters Sur., 8 miles SW of Pequin.
Abd. 2,380 ft.
A. J. Holifield's No. 1 Albert Schwartzlose, Joseph A. Miller Sur., 900 ft. NW line, 200 ft. E line, 99.6-ac. tract.
Drlg. chalk 2,082 ft.
J. Elmer Thomas et al's No. 1 A. J. Manermann, 5,250 ft. from W line and 22,300 ft. from S line of Joseph DeLabaume Sur.
Spudded and S.D.

HIDALGO COUNTY

Davis & Harrison's No. 1 Luis Georgs, 300 ft. from S and 700 ft. from E lines of Tract 13, Porcion 41, Ancient Jurisdiction of Reynosa.
T.D. 4,135 ft.; top gas sand 4,109 ft.; hole bridged in attempt to complete gas well; W.O.
Rogers et al's No. 1 Fairbanks, 7 miles S of McAllen.
T.D. 310 ft.; S.D.
Otto Woods' No. 1 John Lawrence, 330 ft. from W, 300 ft. from N line of Tract 274, Porcion 39, Ancient Jurisdiction of Reynosa.
Sand 2,738-40 ft.; to make D.S. test.
Union Sulphur Co.'s No. 3 American Rio Grande L. & I. Co., 400 ft. from S and E lines of tract, Blk. 88, North Capisallo district.
Drlg. sandy shale 4,010 ft.

JIM HOGG COUNTY

John D. Norwood's No. 1 C. W. Hellen, 330 ft. N and W lines, Sur. 48. Location.
Sun Oil Co.'s No. 2-E Guerra, Los Cuevitas Sur. Drlg. 2,910 ft.
Sun Oil Co.'s No. 1 Martinez Est., center of tract No. 125, in Las Animas grant. Coring wtr. sand 3,152 ft.

JIM WELLS COUNTY

Camp's No. 1 B. O. Owens, 900 ft. from N and E lines of Sec. 11. T.D. 600 ft.; S.D.
O. W. Killam's No. 1 Wade, 100 ft. NE line and 1,400 ft. NW line of Lot No. 1, Blk. C, Wade Subd. Drlg. shale 3,206 ft.
Plymouth Oil Co.'s No. 1 Cuero Cattle Co., 330 ft. from S and W lines of H.T.&B. Sur. No. 7. 2¼ miles W from Alfred. Rig standing.

KARNES COUNTY

R. E. Caveaux et al's No. 1 Tom Campbell, 330 ft. S and E cor. of farm and survey, J. R. Backer Sur., 12½ miles SW of Falls City. Spud and S.D.
Harrison Oil Co.'s No. 1 Martin Schaefer, 330 ft. from SW line, 1,300 ft. from SE line of L.P.I.A.&M. Sur. Drlg. 2,286 ft.

KENDALL COUNTY

Walter Bradley's No. 1 Werner, John F. Torrey Sur. Standing 704 ft.

KERR COUNTY

Edmiston Oil Corp.'s No. 1 Whitworth, 1,160 ft. from S line and 1,833 ft. from E line of Sec. 1,439 of the H.E.&W.T. Sur. T.D. 675 ft.; S.D.
L. L. Evans' No. 1 F. A. Karger, 600 ft. from E line and 1,400 ft. from S line of B.S.&F. Sur. No. 1. T.D. 517 ft.; 10-in. csg. 265 ft.
Jeff Love and Eastland Oil Co.'s No. 5-E Jeff Love, 1,500 ft. SE of No. 1 and 1,580 ft. from SE cor. and 300 ft. from N line of Sec. 1,591. Drlg. 2,025 ft.
J. F. Morrissey et al's No. 1 F. A. Karger, 1,400 ft. from S line and 600 ft. from E line of survey, Sec. 1, B.S.&F. Sur. Drlg. 672 ft.

KLEBERG COUNTY

J. S. Brown's No. 1 Antone Dietz, Sec. 7, Hotch estate. T.D. 3,138 ft.; S.D.
H. Clark et al's No. 1 Kivlin, Sec. 39 T.D. 2,321 ft.; S.D.
Ryalls & Bartlett's No. 1 Flats, Sec. 40. S.D. 985 ft.

LaSALLE COUNTY

Dupree Fountain's No. 1 R. J. Kroschewsky, 1,000 ft. from N line, 150 ft. from E line, in A. G. Starty Sur. Rig.
Standard Oil Co. of D. C.'s No. 1 J. M. Martin, 300 ft. S and W lines of 643-ac. farm in Sur. 633. Drlg. 296 ft.

LEE COUNTY

Jas. E. Pederson's No. 1 Turner, David Hudson Sur. No report; last report T.D. 6,150 ft.
H. A. Sheriack's No. 1 Otto, 736 ft. from NW line, 1,310 ft. from NE line of 87.5-ac. tract in Thomas Morrow Sur. T.D. 1,497 ft.

LIVE OAK COUNTY

J. H. Durbin's No. 3 Marbach, 1,850 ft. from W line and 450 ft. from S line of 428-ac. tract in Stephen Hays Sur. Spudded.
Henderson Coquat's No. 1 Jacob, 660 ft. from N and E lines of Tract 27, Charles E. Trapp Subd., of Everett & Henry Sur. Location.
Marine Corp.'s No. 1 Ross Booth, 400 ft. from SE line and SW line of 392.7-ac. tract in M. B. Kivlin Sur., E of Lucas Field. Rig up.

MAVERICK COUNTY

Stroman & Wright's No. 2 Debona, 449 varas E line, 280 varas S line of Sur. No. 1. T.D. 853 ft.; S.D.

McMULLEN COUNTY

Brazada Oil Co.'s No. 1 Nueces Land & Livestock Prop., in C SE Sec. 111 and about 4 miles W of the Cooper & Frates No. 1 Hagist. Moving in rig.
Cooper & Frates' No. 1 Hagist, 330 ft. out of the NE cor. Sec. 125, and just W of No. 2 Hagist of Lefevre & Spice. Drlg. shale 1,606 ft.
Don Long's No. 1 Nueces Land & Livestock Co., Sec. 111. Rigging up.
C. C. Shumway's No. 7 Shiner, 1,950 ft. from W line and 330 ft. from N line of Sec. 52. Drlg. shale 1,712 ft.
Hy Tounc's No. 1 Callihan, NW cor. Blk. 4, Sec. 6, James Gardner Sur. Derrick.
Wisenant & Trenchert's No. 1 K. Martin, 330 ft. E and N lines of Sec. 36, 7½ miles from W line of county and 2 miles N of Nueces River. Rig.
Charles West's No. 1 Fisher, Roderick O'Boyle Sur. Moving in.

MEDINA COUNTY

McNeill Pet. Co.'s No. 1 W. C. Butler, 450 ft. NW line, 1,050 ft. NE line, Butler 100-ac. tract, James Lewis Sur. Spudded and S.D.
Scoggins & Sanders' No. 1 L. W. Burrell, 150 ft. from E line, 1,750 ft. from N line of M. E. Gage Sur. 395. Drlg. Glen Rose lime 1,599 ft.

MENARD COUNTY

Duffey-Chedster's No. 1 Mears Wilkinson, 660 ft. S line and 660 ft. W line of T.&N.O. Sur., Sec. 33, Abstract 756. T.D. 190 ft.; S.D.

NUECES COUNTY

Buff Pet. Co.'s No. 1 Vincent Bluntzer, 660 ft. N line, 660 ft. E line of Share 7 of Bluntzer Subd. Rigging.
Stanolind O. & G. Co.'s No. 2 Stratton, 1,980 ft. from N line, 660 ft. from W line of NE Sec. 13, DeAbajo grant. T.D. 6,319 ft.; sand 6,303-17 ft.; tried to make D.S. test; recmtd. surface csg.
Texas Seaboard's No. 1 Ed Jurica, 150 ft. from NE line, 500 ft. from W line of Blk. 32. Abd. 5,554 ft.

REAL COUNTY

H. J. Heartwell et al's No. 2 L. J. Haby, 694 ft. from W line and 2,153 ft. from S line of A.B.&M. Sur. No. 175. T.D. 3,000 ft.; prep. to set 8-in. csg.

SAN PATRICIO COUNTY

Beasley & Maxwell's No. 1 Sadler, 300 ft. each way out of SE cor. Blk. 1, Sec. 32, T. Perez Sur. Drilled contract depth 6,000 ft.; abd.
Keep Oil Corp's No. 2 R. Welder, 466 ft. from S line, 2,000 ft. from E line of Adeline Welder tract in Victor Loupsey Sur. Rig.
Keep Oil Co.'s No. 3 R. Welder, 3,000 ft. from E line and 9,920 ft. from S line of lease in Loupsey Sur. Drlg. 6,329 ft. in shale.
Marland Oil Co. of Texas' No. 1 Micalastic, 660 ft. S and W, NE Sec. 6, George H. Paul Subd. Drlg. shale 5,606 ft.
Petrol Corp.'s No. 1 R. H. Welder, 467 ft. from S and E lines of 300-ac. tract. T.D. 6,028 ft.; P.B. to 5,200 ft.; sidetracked to gas sand 5,405-35 ft.; cmtd. csg.; drlg. plug.

STARR COUNTY

C. R. Borah's No. 1 A. Guerra, San Jose grant, 330 ft. from N and 150 ft. from E line of Sec. 6 (NE part of county). Standing 810 ft.
R. S. Boling's No. 1 M. M. Garcia, Sur. No. 918. S.D. 800 ft.
E. L. Smith et al's No. 1 J. M. Longfellow, 330 ft. out of NW cor. of Sur. No. 281. Rigging.
Dean Bros.' No. 1 M. M. Garcia, 2,150 ft. from S line, 4,600 ft. from W line of Sur. No. 916. Drlg. shale 2,600 ft.
Goodwin & Yantis' No. 6 Kelsey Bass, Porcion 87, Blk. 7. Set 7-in. csg. 660 ft.
H. C. Harter's No. 1 Sanches et al, 530 ft. from N line and 450 ft. from W line of Share 72, Porcion 72. Shale 260 ft.; S.D.
Henshaw Bros.' No. 1 El Puerto ranch, 330 ft. out of SE cor. of Share 1, Sec. 85, of the Buell Subd. of the El Puerto ranch. Drlg. 960 ft.
Jeffries-Lambeth Drlg. Co.'s No. 2 Starr County Cattle Co., N of No. 1 in Share 60, Porcion 89. Rig up to work over.
Circle W Oil Co.'s No. 1 Block, NW of Sur. 167. Abd. 5,753 ft.
Smith-Tex. Oil Co.'s No. 1 Starr County Cattle Co., 150 ft. from NW cor. N. ¼ Blk. 24, Porcion 89. T.D. 3,610 ft.; S.D.
Smith-Tex Oil Co.'s No. 2 Starr County Cattle Co., 150 ft. out of NW cor. of E ½ of Blk. 37, Porcion 89. No report.
E. L. Younkin's No. 1 Kelsey Bass, 330 ft from S line, 7 ft. from W line of Blk. 19 in Porcion 87. S.D. 1,750 ft.

TRAVIS COUNTY

Taylor Ref. Co.'s No. 1 Sandahl, 1,330 ft. from SE line, 150 ft. from NE line of 106-ac. farm, 1,550 ft. SW line and 1,330 ft. SE line of Smith Sur. Drlg. Serpentine; S.O. 805 ft.

UVALDE COUNTY

Evans & Johnson's No. 1 Farris, J. Hammons Sur. T.D. 1,050 ft.; S.D.
Lon Evans' No. 1 Stone, 2,566 ft. from N line and 1,473 ft. from E line of survey, 8¼ miles NE of Uvalde, Kent. Sur. No. 652. T.D. 129 ft.; S.D.
Humble Oil & Ref. Co.'s No. 1 R. L. Anderson, 7,450 ft. SW of NE line and 9,100 ft. SE of NW line of J. J. Guerra Sur (3 mi. NE of Uvalde). Drlg. sandy shale 3,165 ft.
T. T. Word et al's No. 1 Quinn Broden, 2,000 ft. S line and 350 ft. W line of John Young Sur. No. 397. T.D. 1,200 ft.; S.D.
T. T. Word's No. 2 Trulove, 40 ft. N. 42 deg. E of No. 1. T.D. 874 ft.; S.D.

WEBB COUNTY

Gholson Drlg. Co. and L. N. Shaw's No. 1 Zeager, 330 ft. S line, 330 ft. W line, NW Sur. 346. Standing 997 ft.
W. P. Morris' No. 1 A. M. Bruni, 994 ft. NW line, 943 ft. NE line, Blk. 65, G. M. Brown Subd., Saltea pasture, in J. V. Borrego grant. Rig up.
J. Elmer Thomas' No. 1 Gates, 1,080 ft. E line, 800 ft. from S line of Sur. 64. Rig up.
Fidelity Exploration Co.'s No. 1 Bolivar, 1,300 ft. from E line, 2,600 ft. from N line of Sur. 687. Drlg. hard rock 2,200 ft.
Wolcott et al's No. 1 D. Green, 1,865 ft. from W line and 1,552 ft. from N line of Sur. No. 283. T.D. 460 ft.; S.D.

WILLACY COUNTY

W. W. Silk's No. 1 Stillman, Lot 16, Blk 30, Santa Rosa Subd., Share 44. T.D. 1,000 ft.; showed a little gas at 602 ft.

WILLIAMSON COUNTY

Johnson & Rag's No. 1 M. D. Oxford, 964 ft. N line of Glenn 209-ac. tract, 1,329 ft. from Shelby 320-ac. tract in 100-ac. tract, Williams Sur. Drlg. shale 920 ft.
City of Taylor's No. 2 City Park, John Winset Sur. No report.
Mann & Roes et al's No. 1 F. Roez, John Bevil Sur. 56. Drlg. 600 ft.
J. A. Morgan Russell's No. 1 Nelson Est., 150 ft. S line and 1,115 ft. E line of J. L. Justin No. 2 Sur., 5 miles S of Georgetown. Spudded and S.D.
Taylor Ref. Co. et al's No. 1 Pumphrey, 450 ft. N and W lines of 102-ac. tract in W. West Sur. S.D. 950 ft.

ZAPATA COUNTY

Robt. Allison's No. 1 E. T. Garza, 150 ft. NE cor. of Blk. 5, in Sur. No. 13. Drlg. 1,628 ft.
Danvers & Harrison's No. 1 M. J. Vela, 686 ft. NE line and 300 ft. NW line, or 3,140 ft. E line and 330 ft. N line of Por. 39, Blk. 7, Bela Subd. S.D. 1,632 ft.
F. G. Delaney et al's No. 1 Bolpe et al, 330 ft. from N cor. of Blk. 1, Share 1, of Delaney Subd., Portion 32. No report.
Merle Gunby's No. 1 Haines, 200 ft. from SE and SW lines of Blk. 4, Alice Haines Subd., in Cuevitas grant. Sand 833-41 ft.; tested 12 joints oil on D.S. test; cmtd. 6⅝-in. csg., 832 ft.
H. & M. Drlg. Co.'s No. 1 Slater, 614 ft. from SW line, 150 ft. from SE line, Blk. 65, J. B. Barrego grant. Rig up.
E. V. & W. Oil Co.'s No. 1 Cuellar. T.D. 1,125 ft.; S.D.
Joe Palmer's No. 11 S. Vela, 330 ft. from NE and SE lines of Blk. 170, Share 4 of L. Grillo grant (3 mi. E of Redondo Pool). Drlg. 753 ft.
R. & M. Drlg. Co.'s No. 1 M. D. Slator, Blk. 65, of Mission Oil Co. Subd. in J. W. Borrego grant. Location.

Southwest Texas Proven

Week Ending August 25

NORTH DALE POOL—BASTROP COUNTY

Ogden & Reed's No. 7 C. L. Riddle, Joseph Gray Sur., 600 ft. E of No. 1 and 600 ft. S of No. 6. T.D. 2,430 ft.; will treat with acid.
Ogden & Reed's No. 1 Ed Pendergrass, 300 ft. from most northerly NW line, 500 ft. from most northerly SW line, A. J. Denson Sur. Rigging up.
Watt L. Saunders' No. 1 Harris, 1,100 ft. from SW line, 2,830 ft. from NW line of John Maximilian Sur. No. 22. Top Austin 2,149 ft.; T.D. 2,338 ft.; testing.

CAESAR—BEE COUNTY

R. A. David's No. 1 Baptist Church, center of 3-ac. church lot, F. Lewis Sur. Rig standing.
Falvey et al's No. 1 Gardner, 330 ft. out of NE cor. of Gardner tract. T.D. 3,064 ft.; W.O.C.

NORTH PETTUS FIELD—BEE COUNTY

Bryce McCandless' No. 1 Beeville Natl Bank, 330 ft. out of NW cor. of 142-ac. tract in G. B. Meyers Sur. Moving in rig.
Diamond Half Oil Co.'s No. 1 Runge State Bank, 330 ft. from NW line and 330 ft. from SW line of 142-ac. tract, 1 mi. NE of Weinert Smith well, Myers Sur. No. 26. T.D. 3,745 ft.; P.B. to 3,620 ft.; to sidetrack.
Houston Oil Co.'s No. 4-B Niehaus, 660 ft. S of No. 1-B. T.D. 3,649 ft.; 7-in. csg. 3,636 ft.; comp. 75 bbls. daily.
Nichols, Hindman et al's No. 1 Weldon & Lackey, 1,694 ft. NW line, 1,607 ft. SW line, 46-ac. tract, J. Gomez Sur. (Goliad County). Rigging up.
Magnolia Pet. Co.'s No. 8 Porter, 660 ft. W of No. 2 and 330 ft. N of S line of lease. Cmtd. surface csg.
Magnolia Pet. Co.'s No. 3 Scarborough, 1,717 ft. NW line and 330 ft. SW line of lease in E. Talley Sur., 378 ft. S of No. 1 and 660 ft. N of No. 2. Pettus sand 3,608-25 ft.; comp. gas well.
Sun Oil Co.'s No. 2 Scarborough, 330 ft. from NW and SW lines of lease in E. Talley Sur., 500 ft. W of No. 1. T.D. 3,215 ft.; P.B. 2,600 ft. to straighten hole.

TULETA—BEE COUNTY

E. M. Jones' No. 1 S. E. Robinson, 990 ft. W line, 220 ft. S line of tract, Uranga grant, Sec. 5. Pettus sand 3,960-89 ft.; shale 3,989-93 ft.; 10-min. D.S. test flowing oil, 60 lbs. pressure; cmtd. csg. 3,970 ft.
E. M. Jones' No. 2 Robinson, Uranga grant, W offset Walton & Heard's No. 1 Rapp. Derrick.
Heyser, Heard & Jones' No. 1 Rapp, Uranga grant, W offset McKay's No. 1 Rapp. Derrick.
Circle W Oil Co.'s No. 1 Rapp, 330 ft. N line, 330 ft. W line, SE SE Sec. 5, Ragsley Subd., Uranga grant. Building derrick.
Dirk Bros.' No. 2 Rapp, 990 ft. E line, 2,310 ft. S line, Blk. 5, Ragsley Subd., Uranga grant. Drlg. shale 2,126 ft.
Walton & Heard's No. 2 Rapp, 2,310 ft. E line, 330 ft. S line, Sec. 5, Uranga grant. Pettus sand 3,926-61 ft.; cmtd. csg.

DRISCOLL—DUVAL COUNTY

Continental Oil Co.'s No. 2-A Clara Driscoll Sevier, 3,675 ft. S line, 1,000 ft. E line, Sec. 448. T.D. 4,695 ft.; 7-in. csg. 3,638 ft.; perforated 3,449-59 ft.; comp. 200 bbls. fluid, 70% S.W.; 1-in. choke; csg. pressure 1,000 lbs.; tubing pressure 850 lbs.

GOVERNMENT WELLS POOL—DUVAL COUNTY

Govt. Wells Corp.'s No. 1 Lundell, Sur. 61. Drlg. 1,800 ft.
K. O. T. Oil Co.'s No. 4 Lundell, 330 ft. from S and W lines of NW of SW, or 1,750 ft. from S line and 330 ft. from W line of Sur. No. 48. T.D. 2,403 ft.; P.B. to 2,353 ft.; abd.

DARST CREEK—GUADALUPE COUNTY

Magnolia Pet. Co.'s No. 5 Roamel, James Hodges Sur. Rigging up to pump at 2,214 ft.

VON ORMY—BEXAR COUNTY

Texas Pet. Co.'s No. 1 E. B. Carruth, F. Rolen Sur. No. 48. T.D. 1,183 ft.; 6⅝-in. csg. 548 ft. with liner to 860 ft.; comp. est. 100,000 ft. gas, 425 lbs. pressure; S.I.

FREMONT—JIM WELLS COUNTY

Magnolia Pet. Co.'s No. 4 Scelligson, O.W. D.D. Deepened from 3,258 ft. to 3,267 ft.; setting screen and tubing to test.

LUCAS—LIVE OAK COUNTY

Houston Oil Co.'s No. 26 Cartwright, J. Sandman Sur., 1,400 ft. SE line and 7,350 ft. SW line of survey. No report.
Texas Co.'s No. 1 Tom Graham, 5,065 ft. N, 60 deg. E, and 1,130 ft. S 25 deg. E of W cor. Geo. Reynolds' Sur. No. 572. Derrick.

JACOB POOL—McMULLEN COUNTY

Kennon's No. 3 Lark, 660 ft. from N line, 330 ft. from E line of E½ of Blk. 15, Scrugham Sur. T.D. 1,067 ft.; P.B. to 1,061 ft.; drlg. out cmt.
R. P. Lightfoot's No. 1 Lark, 160 ft. E line and 300 ft. S line, 33-ac. tract, Blk. 134, E. W. B. Schrugham Sur. Spudded.
Loma Oil Co.'s No. 29-A Jacobs, 660 ft. W of No. 28-A, in Sur. No. 7. Drlg. 850 ft.
L. L. Motes' No. 1 Lark, 150 ft. from N and W lines of Blk. 30, Scrugham Sur., or 200 ft. NE line and 2,500 ft. NW line of Sur. Location.
Slemp & Hockaday's No. 1 Lark, 1,320 ft. N of No. 3 Longhorn, in Scrugham Sur. T.D. 1,036 ft.; P.B. to 1,015 ft.; rigging up to pump.
A. P. Pierce's No. 1 Lark, 150 ft. out of NW cor. Blk. 41, Schrugham Sur. T.D. 1,060 ft.; S.D.
Stewart-Smith & Storey's No. 1 L. Jacobs, 3,301 ft. due S of Texio's No. 3 Jacobs in John Fadden Sur. No. 8. T.D. 864 ft.; recmtd. 7-in. csg. 854 ft.; failed to shut off wtr.; rig skidded 660 ft. E for No. 2 Jacobs.
Stewart-Smith & Storey's No. 2 L. Jacobs, John Fadden Sur. No. 8, 660 ft. E of No. 1. Rigging up.

CUEVITAS POOL—STARR COUNTY

Sun Oil Co.'s No. 5-C M. Guerra & Son, 1,320 ft. NE of No. 4-C La Sacatosa grant. Location
Sun Oil Co.'s No. 7 C. M. Guerra & Son, 1,320 ft. S and 500 ft. E of 5-in. 1,624.5-ac. tract No. 1, Jose Antonio Guajardo Porcion 111. Coring 2,075 ft.

AGUA DULCE—NUECES COUNTY

Camp. et al's No. 2 King, 990 ft. S of N line, 330 ft. W of E line of Sec. 24, R. Garza Sur. T.D. 6,021 ft.; P.B. to 5,455 ft.; W.O.C. 5,550 ft.
Clymore Prod's No. 2-B J. C. Ingram, 660 ft. from E line, 500 ft. from N line, Sec. 9, Blk. 3, Peters Subd. Location.
Clymore Prod.'s No. 3 Ingram, 660 ft. from E and S lines, Sec. 6, Blk. 4, Peters Subd. Derrick down.
Clymore Prod. Co.'s No. 3-D Ingram, 660 ft. from S and W lines of Lot No. 7, Sec. 6, Peters Subd. No. 2. Location.
Clymore Prod. Co.'s No. 1-C Ollie Puri, 660 ft. N and E lines of Lot No. 2, Sec. 7, Peters Subd. No. 2. Moving in rig.
Houston Oil Co.'s No. 3 W. W. Walton, 465 ft. from W line and between N and S lines of 16-ac. tract. Drlg. shale 4,848 ft.
South Mineral Corp.'s No. 2 Ocher, 2,569 ft. from S line, 417 ft. from E line of 95-ac tract in Sur. 418, Sec. 8. T.D. 4,869 ft.; milling out.
Southern Mineral Corp.'s No. 3 Ocher, 3,159 ft. N of S line and 417 ft. from line of Ocher 202.52-ac. tract in Sec. 8. Location.
Southern Mineral Corp.'s No. 4 Ocher, 1,230 ft. S line and 417 ft. E line of Ocher 202.52-ac. tract in Sec. 8. Location.

WEST COLE POOL—WEBB COUNTY

Cole Pet. Co.'s No. 35 Benavides, 1 mile N of United's No. 2 producer. P.B. to 3,415 ft.
Cole Pet. Co.'s No. 36 Benavides, Sur. No. 1, Callaghan homestead tract. Derrick.
Kalmore's No. 1-B Bruni, 330 ft. to W line, 418 ft. SW line, Blk. 23, Sur. 5, Adams Subd., Mariano Arispe grant. Drlg. 525 ft.
O. W. Killam's No. 26, Bruni, Sur. 9, Adams Subd., Mariano Arispe grant, 660 ft. S of Cole Pet. Co.'s No. 35 Benavides. Rigging up.
O. W. Killam's No. 25 Bruni (formerly No. 1 Kulmor), Sur. 6, Adams Subd., Mariano Arispe grant. Drlg. 525 ft.
United Prod. Co.'s No. 1 Bruni. To drill plugs.

LAS ESCOBAS—ZAPATA COUNTY

Texas Co.'s No. 53 Whitehead, Cerrito Bianco grant. Rigging.

Summary of Operations in All Fields for July, 1934

Summary of Wells Completed

	Comp.	Prod.	Dry	Gas
Penn. Grade fields	229	876	20	30
Central Ohio	50	251	12	25
Lima	8	15	3	2
Indiana	19	350	10	2
Kentucky	28	2,059	6	0
Michigan	45	45,804	11	4
Illinois	2	2	1	0
Kansas	90	21,190	22	1
Oklahoma	138	48,862	38	3
North Central Texas	239	26,911	88	2
East Central Texas	12	503	2	1
East Texas	307	16,820	8	0
East Texas gas area	2	0	2	0
West Texas	37	109,159	7	2
Texas Panhandle	73	30,498	1	9
Gulf Coast Texas	130	42,521	48	1
Southwest Texas	94	7,266	45	5
Gulf Coast Louisiana	36	23,176	10	1
North Louisiana	36	304	24	3
Arkansas	9	710	4	0
Montana	19	1,894	4	1
Wyoming	5	52	2	1
Colorado	2	3,034	1	0
New Mexico	13	36,101	4	0
Mississippi	2	0	2	0
Total July	1,625	415,328	375	93
Total June	1,572	452,784	357	124
Difference	53	37,456	18	31

Summary of Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Pennsylvania Grade fields	93	232	325
Central Ohio	35	149	184
Lima	3	24	27
Indiana	1	44	45
Kentucky	2	36	38
Michigan	112	133	245
Illinois	1	13	14
Kansas	31	171	202
Oklahoma	93	3 3	486
North Central Texas	87	217	304
East Central Texas	15	44	59
East Texas	51	266	317
East Texas gas area	1	14	15
West Texas	54	124	178
Texas Panhandle	41	143	184
Gulf Coast Texas	48	167	215
Southwest Texas	31	120	151
Gulf Coast Louisiana	26	93	119
North Louisiana	28	87	115
Arkansas	9	34	43
Montana	11	60	71
Wyoming	14	64	78
Colorado	2	32	34
Utah	1	14	15
New Mexico	19	61	80
Mississippi	6	12	18
Alabama	0	4	4
Total July	815	2.751	3,566
Total June	771	2,763	3,534
Difference	44	12	32

Oklahoma Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Osage	25	10,828	7	0
Noble	5	9,700	1	0
Creek	18	1,078	7	0
Lincoln	3	1,624	0	0
Logan	1	5,236	0	0
Oklahoma	6	4,177	0	0
Seminole	8	2,011	2	0
Pottawatomie	15	8,191	2	0
Okfuskee	2	40	1	1
Muskogee	2	9	1	0
Okmulgee	5	21	3	0
Tulsa	9	252	1	1
Wagoner	3	0	3	0
Pawnee	1	0	1	0
Hughes	6	3,496	1	0
Pontotoc	8	1,780	4	0
Marshall	6	111	2	0
Jefferson	5	147	1	0
Carter	5	142	1	0
Stephens	4	19	0	1
Total July	138	48,862	38	3
Total June	155	55,759	48	5
Difference	17	6,897	10	2

Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Atoka	1	10	11
Carter	1	19	20
Stephens	1	15	16
Johnston	0	1	1
Pushmataha	0	1	1
Jefferson	2	13	15
Marshall	0	6	6
Choctaw	0	1	1
Murray	0	2	2
Pontotoc	3	20	23
Comanche	0	6	6
Jackson	0	1	1
Garvin	0	1	1
Pittsburg	0	4	4
Grady	0	3	3
Pottawatomie	11	46	57
Seminole	5	20	25
Hughes	5	17	22
LeFlore	0	1	1
Caddo	0	4	4
Kiowa	0	1	1
Greer	0	1	1
Washita	1	1	2
Beckham	0	2	2
Cleveland	1	1	2
Okfuskee	1	1	2
Oklahoma	9	22	31
Okmulgee	3	18	21
Lincoln	6	12	18
Muskogee	0	4	4
Creek	10	43	53
Logan	3	8	11
Kingfisher	0	2	2
Blaine	0	1	1
Payne	0	3	3
Tulsa	0	6	6
Wagoner	0	2	2
Pawnee	0	5	5
Osage	24	51	75
Noble	4	11	15
Garfield	1	2	3
Kay	1	1	2
Ellis	0	1	1
Alfalfa	0	1	1
Harper	0	1	1
Grant	0	1	1
Total July	93	393	486
Total June	105	422	527
Difference	12	29	41

Kansas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Ellis	1	150	0	0
Russell	5	1,282	2	0
Rice	17	1,604	6	0
Barton	2	700	1	0
McPherson	19	8,685	2	0
Harvey	8	4,162	1	0
Stafford	2	1,615	1	0
Rush	1	0	0	1
Reno	2	362	0	0
Kingman	4	855	1	0
Greenwood	8	374	2	0
Woodson	3	14	2	0
Sedgwick	4	706	0	0
Butler	5	64	1	0
Cowley	3	449	1	0
Elk	3	68	0	0
Marion	1	6	1	0
Sumner	1	100	0	0
Nemaha	1	0	1	0
Total July	90	21,190	22	1
Total June	71	25,940	19	1
Difference	19	4,750	3	0

Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Rooks	0	2	2
Osborne	0	1	1
Russell	4	11	15
Trego	0	2	2
Ellis	1	0	1
Dickinson	0	1	1
Ellsworth	1	6	7
Barton	1	5	6
Marion	0	1	1
Rush	0	2	2
Rice	6	27	33
McPherson	5	24	29
Greenwood	0	3	3
Stafford	0	3	2
Harvey	3	10	13
Reno	3	22	25
Butler	1	22	23
Sedgwick	3	10	13
Kingman	0	2	2
Harper	0	1	1
Barber	0	3	3
Sumner	0	2	2
Elk	0	6	6
Cowley	3	5	8
Total July	31	171	202
Total June	44	188	232
Difference	13	17	30

East Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Anderson	6	453	0	1
Cherokee	2	25	1	0
Gregg	172	9,604	4	0
Hunt	3	0	2	0
Nacogdoches	1	0	1	0
Rusk	99	5,241	0	0
Smith	18	1,085	0	0
Upshur	15	565	1	0
Van Zandt	2	50	0	0
Wood	1	0	1	0
Total July	319	17,323	10	1
Total June	357	22,179	12	2
Difference	38	4,856	2	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Anderson	6	0	8	14
Cherokee	3	0	5	8
Fannin	0	1	0	1
Franklin	0	0	1	1
Freestone	1	0	4	5
Gregg	20	13	118	151
Henderson	2	0	0	2
Hopkins	0	1	0	1
Hunt	1	0	0	1
Kaufman	0	1	0	1
Lamar	0	1	0	1
Leon	0	0	1	1
Limestone	2	0	1	3
Morris	0	1	0	1
Nacogdoches	0	2	0	2
Navarro	0	1	3	4
Rains	0	1	0	1
Red River	0	0	1	1
Rusk	15	11	78	104
Smith	5	4	10	19
Upshur	8	9	23	40
Van Zandt	3	6	4	13
Wood	0	0	1	1
Total July	66	52	258	376
Total June	63	45	266	374
Difference	3	7	8	2

West Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Andrews	1	525	..	..
Ector	9	2,863	1	
Glasscock	5	441	1	
Howard	1	..	1	..
Jones	1	25	..	
Pecos	3	100,919	1	..
Reeves	1	.....	1	..
Runnels	3	600	1	..
Upton	1	262	..	..
Ward	7	2,067	1	1
Winkler	5	1,457	..	..
Total July	37	109,159	7	1
Total June	40	220,649	..	..
Difference	3	111,490	7	1

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Andrews	1	1	2	4
Borden	0	0	1	1
Brewster	0	1	0	1
Coke	0	0	1	1
Crane	1	1	2	4
Culberson	0	1	1	2
Dawson	0	1	0	1
Ector	8	3	9	20
Fisher	4	3	6	13
Glasscock	5	3	4	12
Howard	6	4	8	18
Irion	1	2	0	3
Jones	3	3	5	11
Loving	1	2	4	7
Pecos	4	7	6	17
Reagan	1	1	1	3
Reeves	1	1	1	3
Runnels	3	4	4	11
Schleicher	0	0	2	2
Scurry	0	0	1	1
Terrell	0	1	0	1
Tom Green	0	0	1	1
Upton	2	2	3	7
Val Verde	1	0	0	1
Ward	7	4	9	20
Winkler	5	3	5	13
Total July	54	48	76	178
Total June	47	42	78	167
Difference	7	6	2	11

North Central Texas Fields

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Archer	118	12,692	33	0
Brown	2	14	1	0
Callahan	2	0	2	0
Clay	1	66	0	0
Coleman	2	0	1	1
Cooke	2	500	1	0
Jack	17	89	13	0
Montague	7	8,798	0	0
Palo Pinto	1	0	0	1
Shackelford	11	622	5	0
Taylor	1	0	1	0
Wichita	18	392	10	0
Wilbarger	30	2,834	10	0
Young	27	904	11	0
Total July	239	26,911	88	2
Total June	214	19,163	81	0
Difference	25	7,748	7	2

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Archer	25	32	45	102
Baylor	1	1	2	4
Brown	4	1	2	7
Callahan	3	3	5	11
Clay	0	0	1	1
Coleman	4	0	5	9
Comanche	0	2	2	4
Cooke	2	1	3	6
Denton	0	1	0	1
Eastland	2	3	3	8
Foard	1	0	1	2
Jack	4	6	2	12
Montague	3	5	3	11
Palo Pinto	2	3	1	6
Parker	1	0	0	1
Shackelford	8	6	16	30
Stephens	0	3	3	6
Throckmorton	1	3	1	5
Wichita	5	9	4	18
Wilbarger	12	10	6	28
Young	9	13	10	32
Total July	87	102	115	304
Total June	81	60	146	287
Difference	6	42	31	17

Southwest Texas Fields

Summary of Wells Completed

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Drlg.	Ttl
Angelita	0	0	0	0	2	3	
Aqua Dulce	3	255	0	0	2	1	3
East Cole	1	0	1	0	0	0	0
North Dale	1	25	0	0	0	1	1
Driscoll	0	0	0	0	0	1	1
Eagle Hill	0	0	0	0	0	1	1
Govt. Wells	23	4,168	1	2	4	11	15
Jacobs Pool	6	165	0	0	0	4	4
Jennings	2	55	0	0	0	1	1
Las Cuevitas	1	0	1	0	0	0	0
Los Olmos	1	8	0	0	0	3	3
North Pettus	10	1,960	0	2	3	3	6
Sinton	1	0	1	0	1	3	4
Von Ormy	1	0	1	0	0	0	0
Miscellaneous	44	620	40	1	21	88	109
Total July	94	7,266	45	5	31	120	151
Total June	98	11,485	48	10	28	125	153
Difference	4	4,219	3	5	3	5	2

Texas Panhandle

Suummary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Gray	46	12,758	0	5
Hutchinson	9	2,605	0	0
Total July	73	30,498	1	9
Total June	33	7,527	3	4
Difference	40	22,971	2	5

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Carson	7	6	4	17
Childress	0	1	1	2
Dallas	0	0	1	1
Gray	13	10	47	70
Hemphill	0	1	0	1
Hutchinson	6	10	14	30
Moore	2	2	4	8
Roberts	0	1	0	1
Wheeler	12	10	32	54
Total July	40	41	103	184
Total June	44	32	95	171
Difference	4	9	8	13

Louisiana Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rigs	Drlg.	Ttl.
Avoyelles	0	0	0	0	0	2	2
Bienville	1	0	1	0	0	1	1
Bossier	5	20	3	0	3	7	10
Caddo	4	4	1	2	3	15	18
Caldwell	0	0	0	0	0	2	2
Concordia	0	0	0	0	0	1	1
DeSoto	3	0	3	0	2	11	13
Franklin	0	0	0	0	1	0	1
Grant	1	0	1	0	0	1	1
Lincoln	1	0	1	0	0	0	0
Morehouse	0	0	0	0	0	2	2
Natchitoches	1	0	1	0	1	5	6
Ouachita	1	0	0	1	2	4	6
Rapides	0	0	0	0	5	2	7
Red River	0	0	0	0	1	5	6
Richland	0	0	0	0	1	0	1
Sabine	16	280	10	0	8	27	35
Vernon	1	0	1	0	1	0	1
Webster	1	0	1	0	1	1	2
Winn	1	0	1	0	0	0	0
Ttl. July	36	304	24	3	28	87	115
Ttl. June	34	1,022	10	14	32	91	123
Difference	2	718	14	11	4	4	8

*Gas production: Caddo, 3,400,000 feet; Ouachita, 1,500,000 feet; total, 4,900,000 feet.

Arkansas Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Arkansas	0	0	0	0	0	1	1
Calhoun	1	0	1	0	1	0	1
Columbia	1	15	0	0	0	0	0
Conway	0	0	0	0	0	1	1
Hempstead	0	0	0	0	1	3	4
Jefferson	0	0	0	0	1	1	2
Lafayette	1	0	1	0	2	2	4
Lee	0	0	0	0	0	1	1
Little River	0	0	0	0	0	2	2
Lonoke	0	0	0	0	0	1	1
Miller	2	350	1	0	2	9	11
Nevada	0	0	0	0	1	0	1
Ouachita	0	0	0	0	0	4	4
Poinsett	0	0	0	0	0	1	1
Union	4	345	1	0	1	8	9
Ttl. July	9	710	4	0	9	34	43
Ttl. June	9	760	4	0	8	16	44
Difference	0	50	0	0	1	2	1

East Texas Border Counties

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Cass	1	0	1	0	0	3	3
Harrison	0	0	0	0	0	2	2
Marion	0	0	0	0	0	2	2
Panola	0	0	0	0	1	3	4
Shelby	1	0	1	0	0	5	5
Ttl. July	2	0	2	0	1	14	15
Ttl. June	2	0	2	0	1	11	12
Difference	0	0	0	0	0	3	3

Mississippi Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Amite	0	0	0	0	0	1	1
Clarke	0	0	0	0	0	1	1
Franklin	1	0	1	0	0	0	0
Greene	1	0	1	0	0	0	0
Hinds	0	0	0	0	2	1	3
Issequana	0	0	0	0	0	1	1
Jones	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Monroe	0	0	0	0	1	0	1
Newton	0	0	0	0	0	1	1
Rankin	0	0	0	0	1	3	3
Simpson	0	0	0	0	1	1	2
Walthall	0	0	0	0	1	0	1
Warren	0	0	0	0	0	1	1
Washington	0	0	0	0	0	1	1
Ttl. July	2	0	2	0	6	12	18
Ttl. June	4	0	3	1	2	13	16
Difference	2	0	1	1	4	1	5

Alabama Fields

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Baldwin	0	0	0	0	0	1	1
Clarke	0	0	0	0	0	1	1

Houston	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Ttl. July	0	0	0	0	0	4	4
Ttl. June	1	0	1	0	0	3	3
Difference	1	0	1	0	0	1	1

Gulf Coast Fields

Summary of Field Operations

TEXAS

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Drlg.	Ttl.
Arriola	0	0	0	0	0	2	2
Ace	1	0	1	0	0	0	0
Barbers Hill	3	1,880	1	0	4	13	17
Batson	1	0	1	0	0	0	0
Buckeye	0	0	0	0	1	1	2
Clay Creek	2	124	1	0	1	1	2
Clevelanc	2	1,020	0	0	1	0	1
Coleto Creek	1	125	0	0	2	1	3
Conroe	17	18,545	1	0	0	14	14
Damon Mound	1	7	0	0	0	4	4
Danbury	1	0	1	0	1	2	3
Esperson	2	395	0	0	0	2	2
Fannett	0	0	0	0	1	1	2
Goose Creek	5	626	3	0	1	2	3
Greta	14	4,951	2	0	3	18	21
Hankamer	0	0	0	0	1	1	2
High Island	2	25	1	0	3	5	8
Hull	4	770	0	0	2	6	8
Humble	2	0	2	0	0	2	2
Liberty	0	0	0	0	1	0	1
Livingston	3	124	1	0	1	1	2
Louise	1	172	0	0	0	4	4
Manvel	7	2,735	2	0	3	6	9
Markham	3	940	1	0	0	0	0
McFaddin	0	0	0	0	0	2	2
O'Conner	1	0	1	0	1	0	1
Orange	0	0	0	0	1	0	1
Orchard	0	0	0	0	0	1	1
Pierce Junction	1	400	0	0	0	3	3
Pledger	2	0	2	0	0	2	2
Port Neches	2	120	0	0	1	1	2
Raccoon Bend	5	1,913	2	0	0	4	4
Saratoga	3	3	2	0	0	1	1
Sour Lake	2	624	1	0	0	3	3
Splendora	1	70	0	0	0	1	1
Stratton Ridge	1	0	1	0	0	0	0
Thompson	5	5,371	0	0	4	2	6
Tomball	9	3,023	1	1	1	8	9
Vanderbilt	0	0	0	0	1	2	3
Van Vleck	0	0	0	0	1	0	1
West Columbia	0	0	0	0	0	2	2
Miscellaneous	21	624	20	0	12	49	61
Ttl. July	130	42,521	48	1	48	167	215
Ttl. June	101	36,234	43	5	30	182	212
Difference	29	6,287	5	4	18	15	3

LOUISIANA

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Drlg.	Ttl.
Bay St. Elaine	0	0	0	0	1	0	1
Black Bayou	0	0	0	0	1	3	4
Bosco	2	2,652	0	0	8	6	14
Caillou Island	1	2,469	0	0	0	2	2
Cameron Meadows	1	190	0	0	1	3	4
Choctaw	0	0	0	0	0	1	1
Dog Lake	0	0	0	0	0	1	1
Edgerly	1	0	1	0	0	1	1
Four Island	1	0	1	0	2	0	2
Garden Island	0	0	0	0	0	1	1
Gueydan	0	0	0	0	0	1	1
Hackberry	3	1,350	0	0	1	7	8
Iowa	4	2,431	0	0	2	8	10
Jennings	0	0	0	0	0	1	1
Lake Barre	1	1,440	0	0	0	5	5
Lake Pelto	0	0	0	0	0	2	2
Leesville	4	6,742	0	0	5	8	13
Lockport	4	220	1	1	1	5	6
New Iberia	1	720	0	0	0	1	1
Port Barre	1	1,920	0	0	0	1	1
Roanoke	1	1,132	0	0	0	3	3
Sorrento	0	0	0	0	0	1	1
Starks	3	1,320	1	0	0	0	0
Sulphur	3	550	1	0	0	7	7
Sweet Lake	0	0	0	0	0	1	1
Vinton	2	40	0	0	0	5	5
White Castle	0	0	0	0	0	1	1
Miscellaneous	5	0	5	0	4	18	22
Ttl. July	36	23,176	10	1	26	93	119
Ttl. June	29	18,044	11	0	21	88	109
Difference	7	5,132	1	1	5	5	10
Gulf Coast							
Ttl. July	166	65,697	58	2	74	260	334
Ttl. June	130	54,278	54	5	51	270	321
Difference	36	11,419	4	3	23	10	13

Rocky Mountain Area

WYOMING

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Big Horn	0	0	0	0	1	5	6
Carbon	0	0	0	0	1	4	5
Converse	0	0	0	0	1	6	7
Crook	0	0	0	0	0	7	7
Fremont	0	0	0	0	0	6	6
Hot Springs	0	0	0	0	0	2	2
Lincoln	0	0	0	0	0	2	2
Natrona	0	0	0	0	2	6	8
Niobrara	0	0	0	0	0	2	2
Park	1	0	1	0	2	3	5
Sublet	0	0	0	0	0	4	4
Uinta	0	0	0	0	0	6	6
Washakie	0	0	0	0	2	1	3
Weston	4	32	1	1	4	4	8
Miscellaneous	0	0	0	0	0	7	7
Ttl. July	5	32	2	1	14	64	78
Ttl. June	7	70	3	1	13	67	80
Difference	2	48	1	0	1	1	2

UTAH

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Ttl. July	0	0	0	0	1	14	15
Ttl. June	0	0	0	0	1	14	15
Difference	0	0	0	0	0	0	0

MONTANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Carbon	0	0	0	0	0	4	4
Fergus	0	0	0	0	0	3	3
Glacier	14	1,799	2	0	6	25	31
Liberty	0	0	0	0	0	2	2
Petroleum	0	0	0	0	0	2	2
Ponders	1	0	1	0	1	1	2
Teton	0	0	0	0	0	3	3
Toole	4	95	1	1	4	8	12
Miscellaneous	0	0	0	0	0	12	12
Ttl. July	19	1,894	4	1	11	60	71
Ttl. June	18	858	2	4	13	57	70
Difference	1	1,036	2	3	2	3	1

COLORADO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Elbert	0	0	0	0	0	3	3
Fremont	1	0	1	0	0	1	1
Grand	0	0	0	0	0	2	2
Jackson	0	0	0	0	0	2	2
Larimer	0	0	0	0	0	4	4
Moffat	1	3,034	0	0	1	2	3
Park	0	0	0	0	1	1	2
Routt	0	0	0	0	0	3	3
Weld	0	0	0	0	0	1	1
Miscellaneous	0	0	0	0	0	13	13
Ttl. July	2	3,034	1	0	2	32	34
Ttl. June	2	0	1	1	5	32	37
Difference	0	3,034	0	1	3	0	3

NEW MEXICO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Eddy	1	0	1	0	2	10	12
Lea	3	36,094	1	0	12	13	26
McKinley	0	0	0	0	1	5	6
San Juan	4	7	2	0	2	14	16
San Miguel	0	0	0	0	0	3	3
Santa Fe	0	0	0	0	0	3	3
Valencia	0	0	0	0	0	3	3
Miscellaneous	0	0	0	0	1	10	11
Ttl. July	13	36,101	4	0	19	61	80
Ttl. June	10	7,648	3	0	14	60	74
Difference	3	28,453	1	0	5	1	6

Eastern Fields

Summary of Completed Work

Field—	Comp.	Prod.	Dry	Gas
Bradford	132	233¾	0	0
Allegany	5	5	0	0
Venango-Clarion	11	10¾	0	0
Butler-Armstrong	3	1	1	1
S. W. Pennsylvania	11	68	2	6
Southeast Ohio	31	206	8	7
West Virginia	36	352	9	17
Total July	229	876¼	20	30
Total June	223	2,075¾	8	38
Difference	6	1,199	12	8

Summary of Work Under Way

Field—	Rigs	Drlg.	Ttl.
Bradford	26	85	111
Allegany	1	9	10
Venango-Clarion	2	10	12
Butler-Armstrong	1	6	7
Southwest Pennsylvania	7	14	21
Southeast Ohio	15	32	47
West Virginia	41	76	117
Total July	93	232	325
Total June	85	213	298
Difference	8	19	27

Central Ohio Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Ashland	5	3	1	2	4	7	11
Medina	7	23	2	2	2	6	8
Lorain	5	6	2	2	2	5	7
Holmes	1	15	0	0	3	4	7
Huron	0	0	0	0	0	1	1
Fairfield	1	0	1	0	3	1	4
Marion	0	0	0	0	0	1	1
Cuyahoga	0	0	0	0	1	0	1
Knox	5	59	2	2	3	6	9
Coshocton	2	85	0	0	2	6	8
Licking	4	65	1	1	0	7	7
Muskingum	0	0	0	0	3	12	15
Athens	2	0	0	2	3	16	19
Harrison	1	0	1	0	0	0	0
Tuscarawas	0	0	0	0	0	7	7
Stark	5	0	1	4	2	20	22
Belmont	1	0	0	1	0	2	2
Guernsey	5	5	1	3	2	18	20
Crawford	0	0	0	0	0	1	1
Gallia	0	0	0	0	0	5	5
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	2	2
Carroll	0	0	0	0	0	3	3
Vinton	0	0	0	0	0	1	1
Lawrence	1	0	0	1	0	5	5
Meigs	5	0	0	5	5	12	17
Ttl. July	50	251	12	25	35	149	184
Ttl. June	65	626	14	30	38	135	163
Difference	15	375	2	5	7	14	21

Indiana Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Gibson	3	150	2	0	1	7	8
Sullivan	3	25	1	0	0	2	2
Pike	3	70	0	1	0	1	1
Daviess	0	0	0	0	0	2	2
Warrick	0	0	0	0	0	2	2
St. Joe	0	0	0	0	0	1	1
Spencer	0	0	0	0	0	3	3
Greene	1	0	1	0	0	0	0
Harrison	0	0	0	0	0	1	1
Porter	0	0	0	0	0	2	2
Henry	0	0	0	0	0	1	1
Martin	0	0	0	0	0	1	1
Shelby	0	0	0	0	0	1	1
Hancock	1	0	0	1	0	1	1
Lawrence	0	0	0	0	0	1	1
Monroe	1	40	0	0	0	1	1
Vanderburg	5	5	4	0	0	10	10
Jay	0	0	0	0	0	3	3
Knox	2	0	2	0	0	0	0
Perry	0	0	0	0	0	2	2
Posey	1	60	0	0	0	0	0
St. Joe	0	0	0	0	0	1	1
Dubois	0	0	0	0	0	1	1
Ttl. July	19	350	10	2	1	44	45
Ttl. June	21	395	11	1	1	38	39
Difference	2	45	1	1	0	6	6

Lima Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Wood	0	0	0	0	0	3	3
Hancock	1	0	1	0	0	1	1
Allen	0	0	0	0	1	3	4
Auglaize	0	0	0	0	0	3	3
Van Wert	0	0	0	0	0	3	3
Mercer	0	0	0	0	0	2	2
Ottawa	1	4	0	0	0	1	1
Lucas	0	0	0	0	0	1	1
Hardin	2	0	1	1	0	2	2
Seneca	1	1	0	0	0	2	2
Wyandot	3	10	1	1	2	4	6
Ttl. July	8	15	3	2	3	24	27
Ttl. June	17	164	9	2	3	29	33
Difference	9	149	6	0	0	5	5

Illinois Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Clark	1	2	0	0	0	3	3
Crawford	0	0	0	0	0	1	1
St. Clair	0	0	0	0	0	1	1
Lawrence	0	0	0	0	0	0	0
Marion	0	0	0	0	0	1	1
Boone	0	0	0	0	0	3	3
Jefferson	0	0	0	0	0	1	1
Clinton	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Macoupin	0	0	0	0	0	1	1
Jasper	0	0	0	0	0	1	1
Monroe	1	0	1	0	0	0	0
Bond	0	0	0	0	0	2	2
Ttl. July	2	2	1	0	1	13	14
Ttl. June	1	0	1	0	1	11	13
Difference	1	2	0	0	0	2	1

Kentucky Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl
Ohio	14	1,324	2	0	2	14	16
Daviess	3	20	1	0	0	16	16
Hancock	5	435	0	0	0	3	3
McLean	4	270	2	0	0	2	2
Allen	1	0	1	0	0	1	1
Ttl. July	23	2,059	6	0	2	36	38
Ttl. June	13	229	7	1	2	40	43
Difference	10	1,830	1	1	0	4	4

Michigan Fields

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drlg.	Ttl.
Midland	27	44,279	4	0	23	41	64
Isabella	11	1,405	3	3	25	17	42
Oceana	1	100	0	0	6	17	23
Gratiot	0	0	0	0	3	3	6
St. Clair	0	0	0	0	2	0	2
Clinton	0	0	0	0	1	0	1
Clare	1	0	1	0	3	1	4
Kent	0	0	0	0	1	2	3
Emmett	0	0	0	0	1	1	2
Cass	0	0	0	0	3	1	4
Montgomery	0	0	0	0	0	3	3
Sanilac	0	0	0	0	3	0	3
Newyago	0	0	0	0	0	2	2
Saginaw	1	0	1	0	5	2	7
Shiawassee	0	0	0	0	2	2	4
Allegan	0	0	0	0	0	1	1
Livingston	0	0	0	0	1	0	1
Alpena	0	0	0	0	1	0	1
Cheboygan	0	0	0	0	0	1	1
Oakland	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	1	1
Macomb	0	0	0	0	1	1	2
Genesee	1	0	1	0	0	0	0
Mecosta	1	0	1	0	3	4	7
Montcalm	1	0	0	1	3	13	16
Muskegon	0	0	0	0	5	7	12
Ogemaw	0	0	0	0	8	10	18
Gladwin	0	0	0	0	1	1	2
Eaton	0	0	0	0	1	0	1
Hillsdale	0	0	0	0	2	0	2
Lapeer	1	20	0	0	2	2	4
Arenac	0	0	0	0	1	0	1
Lenawee	0	0	0	0	0	1	1
Osceola	0	0	0	0	0	1	1
Ttl. July	45	45,804	11	4	112	133	245
Ttl. June	44	21,957	7	5	99	144	243
Difference	1	23,847	4	1	13	11	2

Air Injection Prevents Storage Tank Boilovers

(Continued from Page 16)

inches of b.s. (145 gallons), and 36 inches (1,735 gallons) of Ranger crude were put into each tank.

Strips of heat-indicating paint were put on the sides of the tanks. This paint proved to be very good, as the progress of the heat wave was plainly discernible and the boilover time was predicted to within 10 minutes of the actual time it occurred.

The tanks were ignited at 11 a.m., May 24. As in the drum tests, the tank with air agitation burned only moderately. For the first half hour the flames only occasionally showed above the top of the tank, and no doubt could easily have been extinguished by a comparatively small amount of foam. As the burning continued, the flames gradually became greater. Crackling was heard for the first five hours of the burning, showing that the water was gradually being evaporated. The indicating paint gradually darkened, showing that the oil was all at the same temperature and that there was no "heat-wave."

Judging by the discoloration of the paint, the rate at which the burning surface was lowered was:

2 inches in 1 hour
4 inches in 3 hours 30 minutes
12 inches in 4 hours 30 minutes
18 inches in 5 hours 30 minutes
Burned out in 9 hours 30 minutes

About 2 inches of soft coke remained in the tank, and one of the air-jet arms was burned off; otherwise the tank was empty.

The second tank, which was not agitated boiled over in about two hours. Several successive boilovers occurred. The fire apparently smothered itself after 10 minutes of boiling. Six inches of water and 13¼ inches of oil were left in the tank after the burning ceased.

The progress of the heat wave was indicated by the paint and roughly gauged as below:

5 inches—1 hour
8 inches—1 hour 10 minutes
12 inches—1 hour 15 minutes
18 inches—1 hour 30 minutes
26 inches—1 hour 35 minutes
Top of b.s.—1 hour 45 minutes
Boiled over—3 hours 10 minutes

Crackling was heard at intervals when the heat wave reached the b.s. As in the drum experiments, the b.s. retarded the progress of the heat wave. The burning continued for 25 minutes before the 3-inch layer of b.s. was penetrated.

The flames from this tank shot up 10 to 20 feet above the top at all times, which would make it practically impossible to throw foam into the tank over the top.

Progress of Heat Wave

The same procedure was followed in the same tanks using Mexican crude instead of Ranger crude. In the nonagitated tank the progress of the heat wave was faster than when burning the Ranger crude, and the tank boiled over after 2 hours and 15 minutes of burning. The flames in the agitated tank were less than in the preceding experiment due to the difference in the gravity of the oils, and the fire burned out in 3 hours. As in the first test, cracking was heard throughout the burning, indicating that the water was gradually boiling off.

Next, the relative effectiveness was studied of blowing the tanks through a swing joint, ell turned up; swing joint, ell turned down; and spider. The latter method was found to be the only effective method, as the others failed to mix the b.s. and water sufficiently with the oil.

From the results obtained we feel justified in stating that 700 cubic feet of free air per minute will suspend and hold in suspension the water in a tank of crude providing the water is not in too great excess over the amount used here, and that the viscosity of the crude is not much greater than that of the contents of this tank. For oils of greater viscosity and for larger amounts of water, correspondingly larger quantities of air will be required.

BUYS INDIAN STOCK

The Texas Corp. has notified the New York Stock Exchange that it has acquired and holds at present 1,142,630 shares of the outstanding stock of the Indian Refining Co. out of a total of 1,270,207 outstanding shares. A month ago the Texas Corp. stated it held 1,141,065 shares, or 90 per cent of the stock, having acquired control of the company in 1931.

Drought Stricken Oklahoma Is Relieved by Rains Throughout the Oil Producing Sections

By JAMES McINTYRE

A survey made before the recent rains showed that 81 wells were shuut down in Oklahoma on August 17 for lack of water supply, resulting in a decreased number of completions for the state. The ensuing week's review of operations should reflect much more activity since nearly every oil section has been benefited by the general rainfall during the past week with central Oklahoma getting a major share.

Federal crude allocation for the United States for the month of September has been ordered which reduced the daily production of the nation 107,600 bbls. to the new figure of 2,341,700 bbls. Oklahoma was allotted 461,000 bbls. for its share which is 19,100 bbls. under the August allowable, a decrease of 4 per cent.

Thursday, August 30, had been set as the date of the Oklahoma proration hearing to ascertain the September demand and to allocate this demand between the various pools in the state. Proration officials of the state will hear crude nominations of the purchasers to determine the September demand.

Osage County

Osage County development resulted in the completion of three oil wells in the South Burbank Pool for a combined 24 hours production of 6,632 bbls.; one oil well in the Naval Reserve Pool good for 135 bbls.; one in the Burbank Pool that made 75 bbls.; one 50-bbl. oil well in the south central part of the county; three scattered dry holes and one new location. Magnolia Petroleum Co. and Texas Co.'s No. 2, SW NW SW Section 11-26-6, which had Burbank sand from 2,788-2,848 feet, stopping at 2,851 feet, total depth, was shot with 140 quarts of nitroglycerin to yield 75 bbls. on the swab.

In the north end of the South Burbank Pool, Carter Oil Co. and Peters Petroleum Co.'s No. 1 D. Stanley, NW SW Section 2-25-6, topped Burbank sand at 2,816 feet penetrating it to 2,874 feet, total depth, and was completed for an initial production of 454 bbls. in 24 hours.

The Skelly Oil Co. continues to get nice wells on its M. Ducotey lease in SW Section 3-25-6, and the past week saw its No. 7, NE NW SW, come in for a gauge of 2,653 bbls. in 24 hours flowing naturally with an estimated 2,000,000 feet of gas. It was completed in the Burbank sand logged at 2,769-2,836 feet, total depth, making first flow at 2,777 feet.

Over on the west side of the South Burbank Pool, Sinclair Prairie Oil Co. brought in its No. 2, SE cor. Section 9-25-6, flowing 7,051 bbls. in 48 hours, production coming from the sand recorded at 2,817-48 feet, total depth.

On the east side of the field the Burbank sand was found to be dry in Carter Oil Co. and others' No. 2 Barritt, NW cor. Section 11-25-6, topping same at 2,714 feet. There was only 6 feet of dry sand and drilling was in progress at 2,818 feet, 6 feet in chert formation with a slight show of oil.

Texas Co.'s No. 1 Copahy, C8L NE SE NE Section 29-25-8, Osage County, an old well deepened, had dry Bartlesville sand topped at 2,246 feet, dry Burgess sand 2,403-26 feet and dry and abandoned at a total depth of 2,432 feet.

Sinclair Prairie Oil Co.'s No. 1, NW SW NW Section 12-24-6, Osage County, logged Bartlesville sand at 2,700-17 feet, which was dry, and sand at 2,717-35 feet, total depth, which carried a small show of oil with water, failed to respond satisfactorily and the well was abandoned.

In the Naval Reserve Pool of Osage County, Lewis Production Co.'s No. 3, NW SE Section 28-24-7, had Bartlesville sand at 2,555-2,652 feet, total depth, first oil at 2,576 feet, and was completed for 135 bbls. on the swab after a 60-quart shot.

F. M. Pinney got a 50-bbl. well in his No. 5, CWL E half W half SE Section 15-24-8, Osage County, finding a show of oil and gas in the Oswego at 1,887-2,070 feet, but getting the big pay in Mississippi lime from 2,246-89 feet, total depth. The well made its production on the swab after a 90-quart shot.

South of Wynona in Osage County, Sinclair Prairie Oil Co. and Norbla Oil Co.'s No. 1, SW NW NE Section 26-23-9, which had dry Wilcox sand at 2,506-16 feet, found the Siliceous lime at 2,516-18 feet, total depth, to be dry and it was plugged and abandoned.

The Midco Oil Corp. had staked location for its No. 6 Adlum in the SW NW Section 10-25-6, South Burbank Pool.

Northwestern Oklahoma

Anxious eyes were watching the progress of the second test in the recently discovered Polo Pool of western Noble County, the Sinclair Prairie Oil Co.'s No. 1 Smith, SW SE NE Section 28-22-2w, which encountered the Viola lime at 4,752 feet, corrected, had 9-inch casing set at 4,758 feet and at a total depth of 4,770 feet cable tools were being rigged up. Destination is Wilcox sand which was found in the discovery well, Texas Co. and others' No. 1 Voss, at 4,816 feet, to yield 1,622 bbls.

Vaughn Development Co.'s wildcat test, No. 1 Loula, NE SE SW Section 16-22-1e, central Noble County, cored oil stained Layton sand at 3,385 to 3,480 feet, but went through it without testing and was drilling ahead at 4,517 feet in Mississippi lime topped at 4,480 feet.

The Lucien Pool of Noble County had no new completions for the week and no new starts. However the Shell Petroleum Corp. and others' No. 4 Weber, C SW NW Section 20-20-2w, was a contingent completion held up with a fishing job. First Wilcox sand was topped at 4,945 feet and filled the hole 500 feet with oil at 5,030-36 feet. Second Wilcox sand at 5,109-72 feet, total depth, flowed 175 bbls. of oil with 1,000,000 feet of gas in 24 hours.

An interesting test is the Washoma Petroleum Co.'s No. 1 High Eagle, NW SE NE Section 33-22-5, just outside of the town of Pawnee, Pawnee County, which had an oil show in Bartlesville sand at 3,040-44 feet. No test was made, however, and upon deepening, sand and sandy lime was had at 3,044-54 feet, shale and sandy shale 3,054-62 feet, dark brown lime at 3,062-65 feet, total depth, at which depth the bit was lost in the hole and fishing was in progress.

About 6 miles east of the Lucien Field in Noble County, the wildcat test of the Continental and others' No. 1 Bennett, SE NW Section 19-20-1w, which started out looking like a pool opener in Wilcox sand topped at 5,106 feet, later to be drowned out with a hole full of water, was abandoned at a total depth of 5,232 feet.

Logan County

Another Layton sand producer in the Hull Pool of western Logan County is Anderson & Kerr's No. 1 James, SE NE Section 11-18-4w. Topping Layton sand at 4,750 feet it produced 30 bbls. of oil in nine hours with the bit stopping at 4,773 feet, total depth. It had not been officially completed at that depth.

Gypsy Oil Co. and Sinclair Prairie Oil Co.'s No. 1 Manning, C NW NW Section 3-17-4w, western Logan County, and in an interesting territory, topped Tonkawa sand at 4,119 feet and was coring at 4,136 feet with a show of gas.

Eason Oil Co.'s much publicized 10-acre locations in the Crescent Pool of Logan County were active with No. 2 Katscher No. 1, C NW NE SW Section 34-17-4w, drilling at 4,400 feet and No. 3 Katscher No. 2, NW SW SW Section 34-17-4w, bailing out at 6,150 feet total depth, corrected.

Cable tools were being rigged up on the Texas Co. and Stanolind Oil & Gas Co.'s No. 1 Smith, NE NW Section 14-17-1w, Langston Pool of Logan County. This well had oil showings in the Misener sand and Hunton lime and total depth was 5,037 feet, 23 feet in the Viola lime.

Creek County

Gled Oil Co. had completed its No. 9 Escoe, CNL SW SE Section 27-18-8, Olive Pool of Creek County, for 80 bbls. on the pump, production coming from Layton sand logged at 1,304-35 feet, total depth. In the same area, F. O. Akin's No. 2 Kelly, NW SE NW Section 2-17-8, failed to get Layton sand production and upon penetrating the Skinner, Bartlesville and Mississippi lime, missing the Dutcher and Burgess sands, was dry and abandoned at 3,100 feet, total depth.

Bay State Oil Co.'s No. 2 Tiger, SW cor. Section 3-17-8, Creek County, Olive Pool, got Layton sand at 1,370-1,417 feet, total depth, and flowed 1,020 bbls. upon being shot with 140 quarts.

In eastern Creek County, a Wilcox sand failure resulted in Strozier & Murta's No. 1 Newton, NE NW NW Section 35-17-11, sand from 2,597-2,607 feet, total depth, carried a hole full of water and the well was abandoned.

In southwestern Creek County, W. C. McBride was getting a Wilcox sand producer in his No. 1 Fears, SW NE Section 3-15-7, sand from 4,033-55 feet, responding on flow with 90 bbls. to a 40-quart shot.

Lime Oil & Gas Co.'s No. 1 Benjamin, NW SW SW Section 30-15-8, Creek County, a well being deepened, found Simpson formation at 3,742 feet and at 3,765 feet it was showing a small amount of oil.

Creek County drew two new starts in Fred Gray's No. 1 Martin, NE SW Section 36-19-8, drilling 800 feet, and C. W. Titus' No. 3 Casey, NW NE SW Section 3-17-8, location.

Tulsa, Okmulgee and Wagoner

R. L. Unger's No. 1-B Harrison, NE NW SE Section 25-15-14, northeastern Okmulgee County, was dry and aban-

Wildcat Operations in Oklahoma

Week Ending August 25

NORTHERN OKLAHOMA

ALFALFA COUNTY

Acre et al's No. 1 Acre, C SW NE Sec. 14-24-11w.
T.D. 6,460 ft.; lost tools and S.D.

BECKHAM COUNTY

Price and Watchorn O. & G. Co.'s No. 1 Hoard, NE SW Sec. 17-8-26w.
Drlg. lime 2,060 ft.

CADDO COUNTY

Denver Prod. & Ref. Co.'s No. 1 Nos. NW SW SW Sec. 34-10-10w.
T.D. 11,230 ft.; drill pipe stuck: S.D.

CLEVELAND COUNTY

Anderson & Kerr et al's No. 1 Wilson, NW SE Sec. 27-10-1e.
Spudding.

Mid-Continent Pet. Corp. et al's No. 1 Collett, C E½ NE SW Sec. 35-10-1w.
Rig.

Phillips Pet. Co. et al's No. 1 Baker, C SE NW Sec. 11-9-2w.
T.D. 7,432 ft., Simpson dolomite; cmtd. drlg. on iron.

COAL COUNTY

Moore & Deaner's No. 1 Edward, NW NE SE Sec. 27-2-8.
T.D. 4,970 ft.; C.O.

J. D. Petty Oil Co.'s No. 1 McMillian, SW NW NE Sec. 16-1s-8e.
Drlg. 225 ft.

GARFIELD COUNTY

Ross Cummings et al's No. 1 Gage, SE NW Sec. 27-22-5w.
Spudded and S.D.

GRADY COUNTY

Western Oil Co., Inc.'s No. 1 Carter, NW NE SE Sec. 32-3-7w.
Wtr. at 3,311-53 ft.; dry and abd.

GRANT COUNTY

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-3w.
Rig.

W. Earl Witt et al's No. 1 Patton, SW SE Sec. 19-29-3w.
Rig up; moving in tools.

HARPER COUNTY

Sinclair Prairie Oil Co.'s No. 1 Neff, NW SE Sec. 21-26-24w.
Drlg. 2,790 ft.

HUGHES COUNTY

J. B. Hill's No. 1-A Perkins, C W½ SW SW Sec. 7-5-9.
T.D. 1,075 ft.; S.D.

Olympic Oil Co.'s No. 1-A McClaseen, SE NW NW Sec. 12-8-8.
Cromwell sand 3,433 ft.; T.D. 3,478 ft.; 40,000,000 ft. gas; flowed 347 bbls. in 24 hrs.; completed.

Smith et al's No. 1 Farmer, SE NW Sec. 32-5-9.
Sand 5655-906 ft.; T.D.; H.F.W.

Turner et al's No 1 Williams, SW cor. Section 35-7-10.
Rig.

KINGFISHER COUNTY

Jadoka Dev. Co.'s No. 1 Frakes, C SW NE SW Sec. 16-15-6w.
T.D. 5,112 ft.; S.D.

LEFLORE COUNTY

East Okla. O. & G. Co.'s No. 1 Metcalf, SW cor. Sec. 2-4-26.
S.D. 1,603 ft. for water.

Leflore Gas & Elec. Co.'s No. 1 James, C W line SE SW SW Sec. 11-6-21e.
Drlg. 520 ft.

Murdock et al's No. 1 fee, SW NE SW Sec. 15-5-25e.
T.D. 2,425 ft.; drlg. by tools.

LINCOLN COUNTY

Mid-Continental Oil Co.'s No. 1 Bolby, C SE SW Sec. 27-12-2.
Drlg. 3,313 ft.

L. G. Hulse's No. 1 Sloan, SW NW SE Sec. 19-17-3.
T.D. 885 ft.; S.D.

Texas Co.'s No. 1 Gessmann, SE NE Sec. 33-14-4.
Wilcox 4,990-5,002 ft.; H.F.W.; P.B. and ripped pipe around 3,800 ft.; flow 305 bbls. oil between 5-in. pipe and surface csg.; Cleveland sand 3,040-50 ft.; ripped csg.; est. 10,000,000 ft. gas; flowed 130 bbls. July 28; flowed 75 bbls. July 29; ripped pipe 3,025-31 ft.; no show; cmtng. csg.

LOGAN COUNTY

W. N. Anthony's No. 1 Fruin, SE SW Sec. 4-16-1.
Wilcox 5,265-85 ft.; T.D.; show gas; bailing; lots of wtr.

Gypsy Oil Co. and Sinclair Prairie O. & G. Co.'s No. 1 Manning, C NW NW Sec. 3-17-4w.
Coring at 4,136 ft. in Layton sand; showing gas.

McCLAIN COUNTY

Benedum & Trees' No. 1 James, SE NW SW Sec. 10-5-3.
Location.

NOBLE COUNTY

Continental Oil Co.'s No. 1 Bennett, SE NW Sec. 19-20-1w.
T.D. 5,232 ft.; dry and abd.

Vaughn Dev. Co.'s No. 1 Loula, NE SE SW Sec. 16-22-1.
Layton 3,385-3,430 ft.; drlg. 4,517 ft.

OKLAHOMA COUNTY

Springrose Drlg. Co.'s No. 1 Edwards, C SE Sec. 19-11-1.
T.D. 6,540 ft.; 400 ft. drill pipe in hole.
S.D.

OSAGE COUNTY

Peters Pet. Co. and Norbla Oil Co.'s No. 1, SW cor. Sec. 15-25-8.
S.D. 1,712 ft. for wtr.

Empire O. & R. Co.'s No. 1, SE NE Sec. 2-25-8.
Wilcox sand failure at 3,824 ft.; T.D.;

(Continued on Next Page)

doned in the Glenn sand encountered from 1,542-1,652 feet, total depth.

The Texas Co. was drilling cement plug in its No. 9 Duff, SE SW NE SW Section 11-14-12e, Okmulgee County, after shutting off a hole full of water in Wilcox sand from 2,687-94 feet with 5-inch casing set at 2,700 feet.

Keeney Brothers' No. 1-A Berry, SW SE Section 3-13-16, Muskogee County, after getting oil and gas shows in the Booch and upper Dutcher sands found a hole full of water in lower Dutcher at 2,158-60 feet, total depth, and was abandoned.

Allred and others' No. 2 Drew, CWL SW NE Section 17-13-16, Muskogee County, swabbed 30 bbls. from Dutcher sand at 2,062-88 feet, total depth, and was completed.

Stekol & Durkee's No. 2 Johnson, SW NE SE Section 2-10-11, Okfuskee County, was completed for 65 bbls. in sand at 1,637-60 feet, total depth, which had been shot with 40 quarts.

New work in the Tulsa-Okmulgee area included the following: A. G. Hazlett's No. 5 Burton, CEL SE SE Section 25-14-12, machine; Ford & McDougal's No. 1-A Brown, NE SW SE NW Section 27-15-13, shut down 200 feet for water; Fairland Oil Co.'s No. 1 Simmons, CEL SW SE Section 4-15-15, shut down 575 feet; Panther Oil Co.'s No. 15 Smith, C NE NE Section 11-11-11, machine.

Oklahoma County

Starting to unload while the crew was bailing 500 feet from the top, the Mid-Kansas Oil & Gas Co.'s No. 1 Dahl, SE cor. Section 31-14-3w, Oklahoma County, in the recently active Edmond Pool, flowed 3,937 bbls. in eight hours and 20 minutes of 37.9 gravity oil accompanied by 79,000,000 feet of gas. The well was 148 feet in the Wilcox sand at 6,533 feet.

A glance at this area shows the Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Seunram, NE cor. Section 6-13-3w, second big well in the pool, still shut in; Gulf Petroleum Co. of Oklahoma's No. 1 Lindsay, NE SW NW Section 6-13-3w, cellar; Charles E. Carter and others' No. 1 Seunram, NE cor. Section 7-13-3w, a location.

In the Oklahoma City Field there were no completions and no new work started during the week, with only eight wells that were actually making hole. Total operations on August 22, not including locations, were 34, of which total there were six rigs, the remainder being mostly wells that had reached their objectives with the crew getting them properly conditioned for drilling in.

Greater Seminole Area

Hopes of Wilcox sand production were shattered in the Carter Oil Co. and others' No. 1 Grisso, C N half SE NE Section 2-10-6, Keokuk Pool of Seminole County, when dolomite formation at 4,390 to 4,452 feet, total depth, showed nothing but water and the well had been plugged back to 2,750 feet and the hole was being straightened.

Anderson & Kerr's No. 1 Foreman, C SW SE Section 18-9-5, Earlsboro Pool of Pottawatomie County, swabbed 40 bbls. of oil in three hours after acidizing Hunton lime at 4,097-4,140 feet. It was not a completion.

In the East Seminole Pool, Campbell and others' No. 1 fee, NW SW NE Section 20-9-7, Seminole County, found the Cromwell sand at 3,440-49 feet, total depth, yielding 6,000,000 feet of gas with a good show of oil and tanks were being connected.

The closely watched wildcat well of Olympic Oil Co., No. 1-A McClassen, 910 feet south and 920 feet east of NW cor. Section 12-9-8, Hughes County, was completed for 347 bbls. of oil in Cromwell sand at 3,433-78 feet, total depth. This well had high gas production estimated at 40,000,000 feet.

Barnett Plan trustee's No. 1-A Harris, SW NW SE Section 36-8-7, Seminole County, south and west of the town of Wewoka, had Gilcrease sand at 3,114 feet, and sand at 3,131-35 feet filled the hole 2,000 feet with oil and preparations were being made to swab in the production.

In the Holdenville Pool of Hughes County, Mid-Continent Petroleum Corp.'s No. 9 Factor, SE NE SE Section 15-7-8, was a 40-bbl. oil well, production coming from the Calvin sand at 1,150-77 feet, total depth, and it was completed on the pump. In the same area, Troup and others' No. 7 Haskett, CNL SE SE Section 15-7-8, Hughes County, had Calvin sand at 1,154-85 feet, total depth, which was shot with 40 quarts and pumped 87 bbls. for its completed gauge.

Another Calvin sand completion in the Holdenville Pool of Hughes County was Bonded Refining Co.'s No. 1 Warren, NW SE NE Section 22-7-8, which had Calvin sand at 1,205-19 feet, total depth, good for 10 bbls. daily flowing naturally after a 10 and 20-quart shot.

Roush and others' No. 3 Moore, NE NW NE NE Section 22-7-8, Hughes County, was a location abandoned.

Blackwell Oil & Gas Co. and others' No. 2 Ferguson, CWL SW NW SW Section 29-7-8, Fish Pool, in Seminole County, swabbed 821 bbls. from Cromwell sand logged at 3,002-16 feet, total depth. Another new producer for the same area, but not a completion, was Burke-Greis and others' No. 1 Louisa, NW SW SW SW Section 29-7-8, Seminole County, finding Cromwell sand at 3,038 feet, the bit penetrated to a total depth of 3,056 feet, and the well flowed 960 bbls. in 38 hours.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. were getting a nice well in their No. 1 Sarkey, NE NW SE Section 31-7-8, Fish Pool of Seminole County, Wilcox sand at 4,124-27 feet, flowing 1,548 bbls. in 21 hours.

In the Asher area of Pottawatomie County, Phillips Petroleum Co. and Gypsy Oil Co. and others' No. 1 Flynn, NE NW Section 17-6-3, was drilling 4 feet in Simpson dolomite at 4,439 feet with 300 feet of water in the hole.

There were seven new starts in the Greater Seminole area and they are listed as follows: Atlantic Oil Producing Co.'s No. 1 Boyd, C W half SW SE Section 7-9-5, location; Atlantic Oil Producing Co. and Sinclair Prairie Oil Co.'s No. 4 Foreman "C," C SE NW Section 18-9-5, location; Little River Oil & Gas Co.'s No. 2 Hart, SW SE NW Section 18-8-7, spudding; Mid-Continent Petroleum Corp.'s No. 10 Factor, CNL NW SE Section 15-7-8, location; Troup and others' No. 8 Haskett, NE SE SE Section 15-7-8, location; Blackwell Oil & Gas Co. and others' No. 3 Ferguson, CWL NW SW Section 29-7-8, rig; and Champlin Refining Co.'s No. 3 See, NE SE Section 30-7-8, location.

St. Louis Sector

In the St. Louis Pool of Pottawatomie County, Jones and others were getting a Cromwell sand producer in their No. 1 Brandenburg, SW SE Section 3-7-4, topping sand at 3,474 feet. The bit stopped at 3,540 feet and then the well was plugged back to 3,500 feet and shot with 5 and 10 quarts to swab 516 bbls. in 24 hours.

In the Hunton lime spot of the St. Louis Pool of Pottawatomie County, Mid-Continent Crude Oil Purchasing Co.'s No. 1-A Bewley, NW SW Section 9-7-4, was shut down awaiting effects of acid treatment of the Hunton lime logged at 3745-3,761 feet, total depth, which put 300 feet of oil in the hole.

Phillips Petroleum Co.'s No. 2 Duff, NW SW Section 10-7-4, Pottawatomie County, St. Louis Pool, swabbed 200 bbls. of oil and 20 bbls. of water in 24 hours from Hunton lime found at 3,668 feet. Total depth was 3,910 feet, and the well had not been completed. The same operator's No. 3 Duff, SW NW SW had Hunton lime at 3,632-3,736 feet, filling hole with 2,200 feet of oil, swabbed 260 bbls. gross oil in 24 hours after it had been acidized.

Phillips Petroleum Co.'s No. 2 Curley, SW SE NW Section 22-7-4, Pottawatomie County, was shut down awaiting effect of acid treatment of the Simpson logged at 4,123-43 feet, total depth.

In the southeastern part of the St. Louis Pool of Pottawatomie County, Westgate Oil Co.'s No. 1 Shrader, NE NW NE Section 6-6-5, was completed for 198 bbls. on the pump, production coming from Simpson dolomite topped at 3,988 feet, with the bottom of the hole at 4,040 feet, still in dolomitic formation.

New work in the St. Louis sector is as follows: Magnolia Petroleum Corp.'s No. 2 Disch, SE cor. Section 12-7-4, rig; Vivian Oil Co.'s No. 2 Atchley, SE NW NE Section 1-6-4, cellar.

Grady County

The old Chickasha gas field was getting its first oil well in the Oklahoma Gas Utilities' No. 16 Farwell, NW SE NE Section 26-5-8w, Grady County, which had oil shows at 2,936 to 3,220 feet, total depth, resulting in an estimate of 60 bbls. daily after it had been shot and acidized. It was being bailed out.

Western Oils Incorporated's No. 1 Carter, NW NE SE Section 32-3-7w, Grady County wildcat test, was dry and abandoned at 3,358 feet, total depth.

Pontotoc County

A hole full of water was encountered in Manahan Oil Co.'s No. 1 Gray, SW NE Section 25-5-4, Bebee Pool of Pontotoc County, at a total depth of 2,733 feet. It had been plugged back to a good oil show at 2,615 feet and was shut down waiting for cement to set.

Another disappointment in the Bebee Pool was Vierson and others' No. 1 Fleming, NE SE NW Section 18-5-5, which stopped at 2,743 feet, total depth, 69 feet in Simpson formation, getting 1,800 feet of sulphur water in the hole. It had been plugged back to 2,100 feet and was waiting for the cement to set.

Stanolind Oil & Gas Co. had encountered Simpson dolomite at 2,750 feet which showed oil and was drilling at 2,848 feet in its No. 1 Walker, SE NE NW Section 21-5-5, Bebe Pool.

Development in the highly touted Fitts Pool of Pontotoc County consisted of the completion of three wells, one a dry hole, and five new locations being staked. The J. E. Mabee and others' test, No. 1 Lance, SW NE Section 18-2-7, which

(Continued on Page 72)

Wildcat Operations in Oklahoma

(Continued from Preceding Page)

P.B. and set 8-in. csg. at 3,350 ft.; to test Cleveland sand.
Norbla Oil Co. et al's No. 1, SE NW Sec. 19-25-7.
Spudding.

PITTSBURG COUNTY

Arkhoma's No. 1 Cummings, NW NE SE Sec. 6-4-13.
T.D. 1,490 ft.; fishing.
Exchange Drlg. Co. et al's No. 1 Chunn, SE NW Sec. 29-4-14.
T.D. 350 ft.; waiting for csg.
W. E. Halley's No. 1 Drew, NW SW Sec. 31-3-14.
S.D. 190 ft.
Moffett & Hall's No. 1 Jones, C NE NW Sec. 14-3-14.
Lost tools; T.D. 3,210 ft.; S.D.

PONTOTOC COUNTY

Benedum & Trees' No. 1 James, SE NW SW Sec. 10-5-3.
Rig.
E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-2-6.
S.D. 2,926 ft.
Boyle et al's No. 1 Newbern, SW NE Sec. 21-4-4.
T.D. 2,237 ft.; hole full sulphur wtr.; S.D.
Emanuel, Rudman & Hatcher's No. 1 Mayer, SW SE NW Sec. 7-3-8.
S.D. 1,525 ft.
Jarrett Pet. Co.'s No. 1 Johnson, SE NW Sec. 28-4-4.
T.D. 1,269 ft.; S.D. for water.
Dandridge et al's No. 1 Stafford, NW cor. Sec. 5-1-4e.
T.D. 680 ft.; S.D.
Gillette & Kroeger's No. 1 Duver, NW SE Sec. 36-1n-6e.
Drlg. 550 ft.
Riddle et al's No. 1 Barnes, SE NW SE Sec. 21-5-4.
T.D. 2,910 ft.; S.D. for water.
J. D. Sledge and Jack Lynch's No. 1-A (twin) Thompson, SW NE SW Sec. 1-1n-7e.
Cellar.
Southern Oil Corp's No. 1 Ladd, C NW NW Sec. 27-2-7.
Cellar.

POTTAWATOMIE COUNTY

W. D. Grisso et al's No. 1-A Kenyon, C NE SE Sec. 3-8-4.
Rig.
Phillips and Gypsy Oil Co. et al's No. 1 Flynn, NE NW Sec. 17-6-3.
Dolomite 4,393 ft.; drlg. 4,439 ft. in dolomite, 300 ft. wtr. in hole.
Stanolind-Amerada's No. 1 Goodman, SW NE NE Sec. 5-10-4.
Earlsboro sand 4,405-53 ft., T.D.; swb. and flowed 565 bbls. 21 hrs., est. 10 per cent S.W. and 10 per cent B.S.; to put on pump.

SEMINOLE COUNTY

Harman Oil Co.'s No. 1 Bowlegs, SE NE SW Sec. 1-7-7.
T.D. 1,655 ft.; pulling pipe.
Harris and Haun's No. 1 Harjo, NE SE NW Sec. 11-6-6 (O.W.F.B.).
Old T.D. 2,935 ft.; ripped csg. 2,100-12 ft.; flow 133 bbls.; drlg. by tools 2,139 ft.
Moran et al's No. 1 Brinlee, SW NE Sec. 27-6-5.
S.D. for wtr. 1,360 ft.
Tate & Starbuck's No. 1 Heard, SE NW Sec. 9-6-7.
Drlg. 690 ft.
Wrightsman Oil Co.'s No. 1 Smith, NW SE Sec. 25-10-7.
Set 6-in. 4,400 ft.; rigging up standard tools.

WASHITA COUNTY

Anadarko Basin Oil Co.'s No. 1 Wolf, NE SW Sec. 23-9-17w.
Rigged up and S.D.
Okla.-Midwestern Oil Co.'s No. 1 Dock, SW cor. Sec. 21-8-18w.
T.D. 2,430 ft.; fishing bit.

SOUTHERN OKLAHOMA

ATOKA COUNTY

Brookshire et al's No. 1 Rowland, NW NE NE Sec. 18-3s-10e.
T.D. 3,697 ft.; S.D.
J. D. Boukan's No. 1 Howard, NW SW NW Sec. 26-2s-10e.
S.D. 1,135 ft.; machine moved out.
T. A. Edgerly's No. 1 Donham, SE NW Sec. 26-1-15e.
Rigged up and S.D.
L. A. Fitts' No. 1 Blankenship, NE cor. NW Sec. 19-3s-10e.
T.D. 651 ft.; S.D.
Malernee et al's No. 1 Greenville, N. B., NW SW Sec. 36-2s-13e.
Sand, show oil 2,128-35 ft.; T.D. 2,150 ft.; S.D.
T. C. Ramler et al's No. 1 Roberts, SW SE SW Sec. 6-2s-12e.
Drlg. 780 ft.

CARTER COUNTY

Carter Oil Co.'s No. 1 Bonner, SW SE SE Sec. 19-3s-2w.
Rigging up.
Daphine Oil Co.'s No. 1 Hooks, SE NW NW SE Sec. 5-1s-2w.
Show oil 1,075-1,185 ft.; T.D. 1,350 ft.; S.D.
Hudson & Poland's No. 1 Sullivan, NE SE Sec. 5-5s-1w.
Sand 3,745-60 ft.; show oil; broken sand 3,840-3,982 ft.; showing oil and gas; drlg. 4,050 ft.
McHenry et al's No. 1-A Ratliff, NW SW Sec. 28-1s-3w.
Sand 540-606 ft., T.D.; pumped 7 bbls. in 6¼ hrs.; comp.

CHOCTAW COUNTY

J. V. Scrivener et al's No. 1 Swink, C NE SE Sec. 29-8s-20e.
Set csg. 410 ft. S.D.

COMANCHE COUNTY

F. F. Stevens' No. 1 Green, SE SW Sec. 2-1-13w.
S.D. 1,210 ft.
Holden & Taylor's No. 2 Crutcher, C NE Sec. 11-1n-12w.
Drlg. 804 ft.

GARVIN COUNTY

National Prod. Co.'s No. 1 Littrell, NE cor. Sec. 31-2n-3w.
S.D. 351 ft.

JACKSON COUNTY

Gypo Oil Co.'s No. 1 Stokes, SE NW SW Sec. 16-1-20w.
Show of gas 872-902 ft.; drlg. 1,393 ft.
Gypsy Oil Co.'s No. 1-A (Twin) Kelly, NE cor. Sec. 10-1n-20w.
Drlg. 1,382 ft.
Ben Russell et al's No. 1 Unknown, NW SE Section 30-1-22w.
T.D. 2,500 ft.; repairing boiler.

JEFFERSON COUNTY

Geo. Pace et al's No. 1 Jack, NE NW NW, Sec. 10-4s-4w.
Gas show 1,510-12 ft. and 1,804-18 ft.; T.D. 1,869 ft.; S.D. for wtr.

JOHNSON COUNTY

Okla. Oil Corp.'s No. 1 Tubbi, SW NE SE Sec. 11-2s-8.
At 2,861 ft. est. 1,000,000 ft. gas; 2,150 ft., H.F.W.; Hunton lime 2,445 ft.; T.D. 3,446 ft. in Simpson; fishing.

MARSHALL COUNTY

Nunn and Stinnett's No. 1 Lindecker, NW cor. Section 7-5s-6e.
S.D. 610 ft.
Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e.
T.D. 4,937 ft.; S.D. for wtr.

MURRAY COUNTY

Ed Galt et al's No. 1 Aetna Life Ins. Co., SE NW NW NW Sec. 14-2s-3e.
Drlg. 650 ft.
Gilcrease Oil Co.'s No. 1 Brown, SW cor. Sec. 26-1n-3e.
Sand (Wilcox?) 1,724-38 ft.; T.D. 1,742 ft.; fishing.
T. E. Revell et al's No. 1 Wolfe, NE cor. Sec. 18-1-2.
S.D. 2,600 ft.

STEPHENS COUNTY

Carter Oil Co.'s No. 1 McCasland, C NW NW SW Sec. 32-1s-4w.
Rigging up.
Finley et al's No. 1 Woolsey, NW SE Sec. 10-3s-6w.
Sand 325-27 ft.; show gas; U.R. 10-in. csg.
J. W. Madison's No. 1 Tussey, SW SE NW Sec. 34-1s-4w.
S.D. 3,220 ft.

TILLMAN COUNTY

J. H. Everett's No. 1 Crane, SW cor. Sec. 15-3s-14w.
Rig.

Big Development Week in Michigan Fields Adds to State's Potential; Acidizing Helps Wells

By PAUL A. ELLIOTT
Staff Correspondent, Michigan Fields

MUSKEGON, Mich., Aug. 27.—Eight successful completions and three major increases by acid treatment sent Michigan's potential production skyrocketing toward 200,000 bbls. a day during the past week, adding more than 10,000 bbls. of daily initial.

A new wildcat gasser and two dry holes completed one of the biggest recent weeks in the northernmost oil state of the Central West with new developments in seven different fields.

Three new oil wells in the Porter Township Pool of Midland County, had an aggregate initial of about 6,200 bbls. a day while three other wells in the same major Michigan field accounted for a further increase of nearly 2,800 bbls. a day to comprise a total of about 9,000 bbls. of new daily crude potential.

Another 1,000 bbls. a day was added by the completion of a fourth successful producer in the Home Township, Montcalm County, upper Traverse Pool, while an important new development was the completion of a fourth but smaller 40-bbl. Berea well in the new Oregon Township, Lapeer County Pool, in southeastern Michigan.

Of the other two new oil wells, one is expected to be a new commercial producer in the Dundee formation in a new Ogemaw County township, while the other is a small Dundee producer in the proved Vernon Township, Isabella County, Field.

The new wildcat gasser is located in Milbrook Township, of Mecosta County, on the Montcalm-Mecosta County trend north of the recent Old Dutch wildcat gasser in Belvidere Township, Montcalm County. One "duster" is in Home Township, Montcalm County, and the other in Oregon-Lapeer.

Porter—Midland

The largest of the new Dundee oil producers in the Porter Township Pool is the Porter Township Hall well, SE SE SE Section 16-13n-1w, drilled by M. D. and R. A. Wells. It flowed 60 bbls. in the first 20 minutes, 100 bbls. in half an hour and 175 bbls. in the first hour for an estimated 3,000 bbls. a day, topping the Dundee at 3,384 feet and striking the pay 10 feet in at 3,394 feet.

Fred Turner and others' No. 2-B Eugene St. Johns, SW SE SW Section 21, same township, topped the Dundee at 3,371 feet and came in with an estimated initial of 2,000 bbls. a day at a total depth of 3,434 feet as the second largest producer of the week. It made 85 bbls. an hour to start.

The third new Porter Dundee well was Charles W. Teater's No. 7 Joseph M. Wale, SE NW NW Section 22, which was good for 1,200 bbls. a day at 3,405 feet. It flowed 900 bbls. in 18 hours.

Theodore Oil Co.'s No. 1 Campbell, NW NW SE Section 17, was increased about 1,200 bbls. a day after declining to 25 bbls. a day and being subjected to acid treatment. Originally it was completed some time ago as a 350-bbl. well.

Columbia Oil & Gas Co. and Gordon Oil Co.'s No. 4 Minnie Hale, SE SW SW Section 21, drilled in a week before with an estimated initial of 1,800 bbls. a day was rated at 2,829 bbls. a day when finally completed after acid treatment, thereby adding more than 1,000 bbls. of new production for the past week. Dundee was topped at 3,375 feet and the hole was carried to 3,432 feet for completion.

Pure Oil Co.'s No. 5 Everett Kleinhans, SW SW NE Section 20, Porter, which showed for 19 bbls. the week before, was rated at 577 bbls. a day, or 558 bbls. more than previously credited. Dundee was topped at 3,378 feet and the hole was bottomed at 3,436 feet.

Montcalm—Mecosta

Two of the most interesting developments of the week occurred on the Montcalm-Mecosta County trend where a new 1,000-bbl. oil producer and a 2,000,000-foot wildcat gasser were drilled in the upper Traverse and Michigan sands, respectively.

The Daily Crude Oil Co. after several weeks of testing and acid treating, brought in its No. 3 H. P. Christensen, SW SW SE Section 3-12n-6w, Home Township, Montcalm County, with a flow of about 50 bbls. an hour, or more than 1,000 bbls. a day in the upper Traverse pay sands.

F. Irwin Bryan and Harry T. Martin completed their No. 1 Virgil V. and Mina I. Sheets test, NW SE NW Section 35-13n-7w, Milbrook Township, Mecosta County, with an open flow of about 2,000,000 feet a day of natural gas from the Michigan sands.

Rex Oil & Gas Co., of Muskegon, suffered another disappointment when its No. 1 H. P. Albaugh, NE NW NE Section 34-12n-6w, Home Township, failed to produce in the Dundee after showing nothing in the upper Traverse. Dundee was topped at 3,525 feet and drilling discontinued at 3,540 feet where the hole was to be plugged and abandoned, the Rex company's second unsuccessful test to the Dundee in Home Township.

Oregon Township, Lapeer County

William C. Sowell brought in his No. 2 Max and Anne Koehler and Alex and Elizabeth McKay, SW NE SW Section 4-8n-9e, as the fourth Berea oil producer in the new southeastern Michigan field in Oregon Township, Lapeer County, now attracting considerable attention. It filled up 232 feet within 45 minutes when drilled into the pay at 1,412 feet and was estimated good for about 40 bbls., or the largest of the four wells in the field.

Lawrence P. Mytinger's No. 1 George Zimmer, NW SW SE, also Section 4, Oregon Township, was a disappointment, dry in the Berea, but may be carried deeper.

C. A. Perry's No. 1 Wobig heirs, SW SW NE Section 6, Mills Township, Ogemaw County, filled up 1,300 feet with oil from the Dundee pay sands at 2,876 feet and was to be acid treated with possibilities of making a Dundee producer in the new section of this as yet uncertain field 50 miles north of the Mount Pleasant area.

Another small producer was completed in the Vernon Township Pool of Isabella County, when the Mammoth Petroleum Co.'s No. 5 C. Thayer, SW NW SW Section 23-16n-4w, topped the Dundee at 3,734 feet, struck pay sands from 3,740-48 feet and was finished at 3,750 feet for about 70 bbls. a day.

Pure Oil Co.'s No. 3-A Mattie Yost, C SW SW Section 35-14n-2w, Greendale Township, Midland County, encountered the Dundee pay sands at 3,427 feet and had a good show of oil drilling in.

Four other wells neared completion in the Mount Pleasant area in the Dundee formation, three in Porter Township, and another in Greendale, as the week closed.

New Locations

Five new permits to drill were issued by the state conservation department, including two for gas tests in Broomfield Township, Isabella County, one for a new test in Ogemaw Township, Ogemaw County, another for a wildcat in Gilmore Township, Isabella County, and the fifth for oil in Porter Township, Midland County.

Michigan Cities Natural Gas Co. took out two permits for new gas tests in Broomfield as follows: No. 1 Lueder-Cook, C SW NW Section 11-14n-6w, and No. 2 Fred Winters and others, C SW SE Section 10.

W. Hunter Atha's No. 1 W. F. and Flora M. Phillips, C SW NE Section 36-16n-5w, Gilmore Township, Isabella County, will test a new territory. Same operator also is reported planning another wildcat test in Section 28, Mount Haley Township, Midland County, seeking an eastern extension of the present Midland County Pools.

M. J. Ingold was granted a permit for his No. 1 Ed Stevenson, C N half SE NE Section 24-22n-1e, Ogemaw Township and county, while the Strange Oil & Gas Co. took out a permit for its No. 8 on the Sam Walley lease, NE SE SE Section 16-13n-1w, Porter Township, Midland County.

Daily Crude Oil Co. is preparing to start its No. 4 Christensen, in Home Township, Montcalm County, as the result of the success of the No. 3 well on the same lease, although no permit as yet has been issued.

Theodore Oil Co. will deepen its Nos. 2 and 3 wells on the Ogemaw Country Club lease in West Branch Township, Ogemaw County, from the upper Traverse in which they were originally completed as small producers to the Dundee. A fourth well also will be drilled on this lease, it is reported.

Michigan Gas & Oil Corp. may complete its No. 1 Marthey, first Dundee producer in the Leaton Pool in Section 19, Denver Township, Isabella County, in the Monroe formation rather than deepening to the Sylvania as a recent permit called for, it was learned.

The Golden Oil Co., recently organized at Belding, Mich., is reported planning to start drilling soon on a 4,000-acre tract in the Flat River Valley between Greenville and Langston.

Development Work in Central West Shows Nice Gain in All Districts

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Aug. 27.—The Central West Field, comprising the Lima, Central Ohio, Indiana, Illinois and Kentucky Fields, shows a nice gain in development work. In the Lima Field of northwestern Ohio, in Ottawa County, Mrs. Zella Shell's test on the Coleman Szakavits farm, Section 14, Harris Township, produced an initial of 8 bbls. In the Tiffin Field the Tiffin Oil & Gas Co.'s test on the Frank Sherger farm, Section 32, Liberty Township, is a gas well, in Seneca County. J. W. Fox abandoned Nos. 2 and 3 Ida and W. J. Peeler farm, Section 11, Jackson Township. In Allen Township, Ottawa County, J. J. Hartman abandoned Nos. 1, 2 and 3 Fred Blausey farm, Section 10.

In Seneca County, Tiffin Industrial Gas Co. is drilling No. 2 R. L. Shawhan farm, Section 9, and J. L. Barrett is drilling No. 1 T. H. Einsel farm, Section 1, Hopewell Township.

In Wyandot County, New Oil & Gas Co. is starting No. 7 on the Minor Kohler farm, Section 20, Crane Township.

ILLINOIS

In Illinois no completions were reported. In Bond County, Alspaugh, Mason & Ashby are drilling on the Martha E. File farm, Section 22, Old Ripley Township, and Jess Ashby and others are drilling on the William File farm, Section 5, same township.

C. Hartman and others' are shut down in No. 1 J. F. Boughan farm, SW Section 20, Parker Township, Clark County. In Madison County, T. C. Havilla is drilling around 1,596 feet on his own farm.

INDIANA

The Indiana Field shows a nice improvement in field work. In Gibson County, George W. Porter's test on the J. E. Toops farm, NE NE Section 14, Union Township, was dry at 970 feet. In Sullivan County, Yeager and others' test on the L. Hunt farm, SE NE Section 6, Fairbanks Township, reported an initial of 40 bbls.; No. 2 same farm is drilling. M. V. Yeager's No. 2 Link Morris farm, SW SW Section 8, was dry at 2,486 feet.

In Daviess County, D. L. Norris and others' test on the Ray A. Ragsdale farm, SW SE Section 4, Harrison Township, is a gas well at 630 feet.

In Spencer County, I. A. Polhamus' test on the F. W. Grass farm, SW NE Section 11, Hupp Township, reported an initial of 25 bbls. In Monroe County, J. F. Inver's No. 1 Roll Howell farm, Section 32, is a gas well, with around 1,000,000 feet. In Jay County, N. E. Masters' test on the Russell Greaf farm, NW SW Section 25, is a gas well at 1,033 feet, as is his No. 1 Harvey Weaver farm, SE SE Section 24, both in Wayne Township. In Bear Creek Township, Jay County, Spencer and Pontius farm, SW Section 13, is a 5-bbl. well at 1,074 feet. Homer Pontius is drilling on the Raymond Roser farm, same section.

In Perry County Perry Andrews' No. 10 on the Fred Conyers farm, NW NW Section 30, Clark Township, produced 6 bbls. at 281 feet.

In Posey County, L. R. Henley's test on the Lorenz Luigs farm, NW NE Section 23, Robinson Township, produced 60 bbls. initial at 1,184 feet. He is drilling No. 1 William Damm farm, SE SW Section 14, same township.

In Washington County, A. B. Bement is drilling on the C. K. Humphreys farm, S half SW Section 33, Washington Township.

In Dubois County F. L. Damron is drilling on the Albert Fritch farm, SE NW Section 32, Harbison Township.

In Vanderburg County, A. P. Taliaferro's No. 7 on the Phil Neidhamm and others farm, SE SE Section 20, Center Township, produced 5 bbls. initial. Drake & Young are drilling No. 2, William Roth farm, S half SW Section 20, same township, and John L. Drake is drilling No.

(Continued on Page 78)

Twenty-Two Wells Completed in Eastern Fields; Completion Revives Interest in Perry County, O.

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Aug. 27.—Twenty-two wells were completed in the lower eastern fields during the week and among them were 14 producers with an initial production of 277 bbls. Eight were gas wells and there was, also, one dry hole. There were interesting developments in all districts and in Southeast Ohio all of the completions were producers, two showing fair.

SOUTHEAST OHIO

The most interesting completion for the week was in Perry County and it revived activity in an old field. In the SW Section 25, Coal Township, the Kachelmacher estate completed No. 6 on the Hemlock Coal Co. tract in the Clinton sand at a depth of 3,573 feet. It filled up about 1,500 feet while being drilled in and, after shot, produced 55 bbls. the first day. It is located about 950 feet east of the same operator's No. 4. Some 8 or 10 years ago there were five or six wells drilled in this vicinity and none of them was large. This completion has apparently struck an outlet and it may develop into a fair pool.

In Coshocton County there was one fair test. Preston Oil Co. completed the test on the Bertha E. Barrett farm in Newcastle Township in the Clinton sand at a depth of 3,278 feet. It produced 112 bbls. the first day after shot.

In Guernsey County M. J. Purday and others completed a test on the Wilbur Frame farm, NE Section 10, in Millwood Township, showing for 10 bbls. a day, after shot, from the Berea grit at a depth of 1,340 feet.

In Knox County Robert Bright and others completed a test on the Victor McKee farm in Section 23, Harrison Township, in the Berea sand at a depth of 732 feet. It produced 5 bbls. the first day after shot.

In Medina County there were three completions. In Section 1, Litchfield Township, D. A. Lake completed No. 16 on the Pearl and Frank Weaver farm in the shallow Berea grit at 310 feet. It produced 10 bbls. the first day after shot. On Tract 14, Lot 1, Chatham Township, Pure Oil Co. completed No. 41 on the A. B. and Mary Hostetter farm in the same formation at 516 feet and it made 6 bbls. the first day after shot. On Tract 15, Lot 12, same township, E. R. Edson & Son Co. completed No. 51 on the Ed G. Miller farm in the Berea grit at 490 feet. It produced 4 bbls. the first day after shot.

In Noble County, NE Section 18, Seneca Township, Thurman L. and C. W. Rich completed a test on the Mrs. Robert J. Gray farm in the Berea grit at a depth of 1,315 feet. It produced 3 bbls. the first day after shot. The location is 1,500 feet due north of the test on the Henry Murphy farm and the formation is much better.

In Washington County, Gaw Oil & Gas Co. completed a test on the Francis Cline farm in Section 3, Ludlow Township. It was drilled in the Keener sand at 1,608 feet and produced 10 bbls. the first day, natural, which was increased to 16 bbls. after shot.

WEST VIRGINIA

There were four producers completed in West Virginia during the week. In Marion County, Carnegie Natural Gas Co. and others completed a second well on the Martha E. Keenan farm in Mannington district in the Thirty-Foot sand at a total depth of 3,297 feet. The Pittsburgh Coal was at 1,262 feet with the top of the Thirty-Foot at 3,267 feet. It is showing for 10 bbls. a day after shot.

In Marshall County, Carnegie Natural Gas Co. drilled deeper an old gas well, No. 1, on the C. E. Yeater farm on Fish Creek in Liberty district, now showing for about 5 bbls. a day.

In Monongalia County on Miracle Run in Battelle district, Harry L. Tennant drilled deeper No. 5 on the Wise-Tennant lease from the top pay of the Gordon sand at 3,380 feet, where it was showing for a gas well, to the lower pay at 3,440 feet. It is a producer making 5 bbls. a day.

In Wetzel County Rawe Brothers completed a test on the Evan Morgan farm in Green district in the Maxon sand at a depth of 1,600 feet. It started off at 30 bbls. a day. There was no coal vein at all, and the top of the Maxon sand was at 1,546 feet with oil showing at 1,576 feet. The bottom of the sand was at 1,588 feet.

Gas Wells

In Cabell County R. H. Adkins and others completed a test on the C. P. Rousey farm in McComas district in the Brown shale at a depth of 3,567 feet. It is showing for about 150,000 feet of gas a day.

In Calhoun County, Kenny M. Hunt and others completed a test on the Glen Wilson farm in Sherman district in the Injun sand at a depth of 2,155 feet. It is showing for a light gas well.

In Doddridge County a local company drilled a test on the Eli Fleming farm in West Union Township through the Big Injun sand to a depth of 1,782 feet. It was dry and is on Arnolds Creek 255 feet southeast of the test of the Murphy Oil Co.

In Gilmer County McCall Drilling Co. completed a test on the M. S. Cawthorn farm in Center district in the Injun sand as a gas well. It is rated close to 250,000 feet a day.

In Lincoln County R. H. Adkins and others completed a test on the Henry Huffman farm in Carroll district in the Salt sand at a depth of only 950 feet. It gauges at 500,000 feet a day.

In Ritchie County there were two completions. In Clay district J. F. Deem completed a test on the Church of Christ lot in the Salt sand which had a volume of 642,000 feet a day. The Keener sand had a showing of 135,000 feet of gas a day and the Squaw sand was dry. In Grant district, Gillman and others completed a test on the Stephen Gillman farm at a total depth of 1,874 feet. The lower sands were dry but the Maxon sand at 1,650 feet had a showing of 648,000 feet of gas a day.

In Wayne County Fairfax Gas Co. completed a test on the H. C. Taylor farm in Ceredo district in the Brown shale at a depth of 3,149 feet. It is showing for a light gas well.

Drilling in West Virginia

There is considerable new work in progress in West Virginia. In Boone County Godfrey L. Cabot, Inc., has reached 1,150 feet on the Spruce-Boone Land Co. lease, Washington district. In Sherman district, this operator has reached 2,990 feet in No. 2 Mary Dickinson farm, and 2,543 feet in No. 3 on the Central Trust Co. lease.

In Cabell County three wells are drilling. In Barboursville district United Fuel Gas Co. has reached 1,500 feet on the J. W. Starkey farm. In McComas district H. H. Baker Gas Co. is drilling at 1,640 feet on the Augusta Beckett farm, No. 2, and West Virginia Gas Co. is down 2,100 feet on the Alifair Adkins farm, a test.

In Calhoun County Dudley Lutz and others have started drilling on the Simon Moniger farm in Sherman district. L. P. Bickel is ready to start drilling No. 15 on the Martha Stump heirs farm. Godfrey L. Cabot, Inc., is drilling a fairly deep well on the W. T. Rafferty farm, No. 9, which has reached 2,830 feet. Carnegie Natural Gas Co. is down 1,625 feet in No. 3 on the R. F. Bennett farm. In Sheridan district, Harley Ferrell and others have made a location on the T. J. Jackson farm. Richter Oil Co. is drilling at 1,400 feet on the Z. O. Cooper farm, No. 5. Rothwell and others are down 1,740 feet on the Ernest and Edith Marshall farm. In Lee district, Jarvis and Ayers have reached 980 feet in the test on the Roanna Robinson farm and F. F. McIntosh is down 1,375 feet on the Mary E. Hays farm, No. 5. In Washington district, W. B. Reed and others have made a location on the Curtis and Ella May farm. Jackson and Bowers are drilling at 1,300 feet on the Charles White farm. Eastern State Gas Co. is drilling at 1,070 feet in No. 2 on the Albert Wilson farm. Carroll and Hamilton are fishing for the bit on the Carl and Robert Knotts farm, at 1,790 feet.

In Doddridge County, W. D. Gribble is drilling at 1,780 feet in No. 2 on the M. J. Smith farm in McClellan district. In Southwest district, Hughes River Oil & Gas Co. is drilling on the C. P. Broadwater farm and has reached 1,200 feet.

Gilmer County

In Gilmer County, West Virginia Utilities Co. has made a location on the J. J. Gerwig farm 5,000 feet southeast of the test on the L. R. Moore farm. Mudlick Oil & Gas Co. has made a location for a second test on the L. R. Moore farm about 1,200 feet southeast No. 1. V. M. Stewart and others have made a location on the S. P. Miller farm. Godfrey L. Cabot, Inc., has resumed drilling on the J. P. Norman farm and reached 2,310 feet. Hope Construction & Refining Co. is down 1,450 feet on the A. H. Blackshere farm. Dotson Norman and others are drilling deeper on the Bud Stump and others farm and are fishing at 1,630 feet.

In Lincoln County, United Fuel Gas Co. is drilling deeper No. 2,074 on the Charlotte Watson farm in Sheridan district and has reached 2,720 feet. In Jefferson district, David Gas Co. is drilling at 1,450 feet on the T. W. Dolan farm.

In Mingo County, F. H. Yates has started drilling on his own property in Harvey district. In Lewis County, McCall Drilling Co. has spudded in and started drilling on the Jesse B. Wiseman farm in Freemans Creek district.

In Monongalia County, Chartiers Oil Co. has reached 2,700 feet on the Simon Shriver heirs farm in Clay district. In Cass district Martin Oil & Gas Co. is down 1,125 feet on the David Lemley farm. In Clay district, there is a rig standing on the Clark Yost farm, owners unknown.

In Pleasants County S. Powell and others have made a location on the R. H. Browse and Ralph Hanes lease in McKim district.

Ritchie County

In the lower Pike Pool in Clay district, Ritchie County, George Allen has started drilling on the Frank Sheets lease. Murphy and others are drilling at 1,520 feet on the Frank Beall Town Lot. Broadwater and Wilson have reached 735 feet on the J. Kelley farm. Lucas and Mahaney are drilling at 1,755 feet on the Earl Cunningham and W. H. Bickle is fishing at 1,100 feet on the Fred Pifer lease. Smith and Henderson are drilling at 1,620 feet on the Charles Wilcox, Sr., lease No. 1. Smith and Rexroad are down 300 feet on the C. O. Delancy farm.

In Murphy district, Ritchie County, Wilson Gas Co. is spudding in the second test on the Roy Livingston farm on Dutchman Run. T. H. Hanley has a rig standing on the D. M. Miller farm. In Union district, Dr. S. M. Prunty has a

(Continued on Page 64)

Administrator's Report on Crude Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended August 18, totaled 338,762,000 bbls., a decrease of 1,625,000 bbls. from the total of 340,387,000 bbls. on hand at the end of the preceding week, Harold L. Ickes, Secretary of the Interior and administrator of the code of fair competition for the petroleum industry, announced. This decrease, which followed a material decline during the previous week, comprised a decrease of 1,460,000 bbls. in stocks of domestic crude and a decline of 165,000 bbls. in stocks of foreign crude.

Current reports of the industry for the week ended August 18, in comparison with those of the previous week, indicate that daily average crude production increased from 2,560,000 to 2,580,000 bbls. and that daily average imports decreased approximately 20,000 bbls. Crude runs to stills continued to increase and for the week ended August 18 averaged 2,580,000 bbls. daily, a gain of 40,000 bbls. over the average of the previous week. Indications point to a continued increase in crude oil exports.

CRUDE PETROLEUM STOCKS REPORTED BY COMPANIES HOLDING 100,000 BBLS. OR MORE

Grade of crude oil—	Stocks held by reporting companies Aug. 11, 1934 (bbls.)	Aug. 18, 1934 (bbls.)
Pennsylvania Grade	4,747,000	4,742,000
Other Appalachian, including Kentucky	1,167,000	1,163,000
Lima-Northeast Indiana-Michigan	1,435,000	1,419,000
Illinois-Southwest Indiana	11,352,000	11,378,000
North Louisiana and Arkansas	10,204,000	10,230,000
West Texas and Southeast New Mexico	29,441,000	29,750,000
East Texas	38,044,000	37,651,000
Other Mid-Continent	160,846,000	159,762,000
Gulf Coast	17,769,000	17,359,000
Rocky Mountain	27,839,000	27,770,000
California	34,277,000	34,386,000
Total domestic crude	337,121,000	335,661,000
Foreign crude	3,266,000	3,101,000
Total crude	340,387,000	338,762,000

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Among Gulf Coast Drilling Contractors

Edwards Drilling Co. has been awarded a contract to drill an 8,500-foot well for the Pure Oil Co. in the Dickinson area, Galveston County. Derrick is now being erected, and a heavy rig will be moved in from Louisiana, where it has just completed a deep hole. This well will be carried as No. 1 J. W. Shelor, and is located near Humble Oil & Refining Co.'s No. 1 Maco Stewart, which recently blew out and caught fire, and was subsequently abandoned. Engineers estimated that this well showed a pressure at the surface of approximately 3,000 pounds. Depth when well was abandoned was 7,887 feet.

Elbert Jeanes, who completed several wells in Southwest Texas earlier in the year, is drilling a well at Hankamer, Liberty County, for the Cretaceous Oil Co. Five hundred feet of surface has been set, and the plug has been drilled.

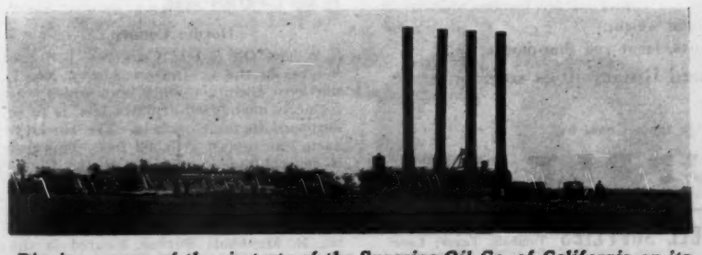
Steen Drilling Co. is moving a rig on a 5,300-acre block adjoining the town of Port Lavaca, Calhoun County, where it will drill a 6,000-foot test for itself. Acreage adjoins a block held by the Texas Co. and was acquired from W. A. Williams, formerly president of the Crown Central Oil Co. The prospect was located by geophysical methods and is said to be promising.

Alamo Drilling Co. has been awarded a contract to drill a well in the Greta Field for the Stanolind Oil & Gas Co. The company also has a rig running for the Stanolind on a deep test near Agua Dulce, Nueces County.

Farrell Drilling Co., who started a well for Imperator Oil Co. near Penn City on the Houston Ship Channel, and who set and cemented 300 feet of surface casing, has taken over this well and will carry it down probably to the contract depth of 5,500 feet. Prospect is a wildcat located on a geophysical prospect discovered by H. C. Cockburn.

As the man who, at one time, had 79 rigs running under his general supervision, most of them rotary rigs, few know that Harry L. Edwards, president of the Edwards Drilling Co., started his oil field career back in 1910 as a cable tool man in the Bradford Field, Warren County, Pennsylvania. After acquiring considerable experience in the Eastern fields, he came to Breckenridge, Tex., in 1920 as a cable tool driller for the Humble Oil Co. In 1921 he was appointed division superintendent for the Humble company, in charge of production in the Breckenridge and Cisco areas. In 1922 he was assigned to the Houston office of the company, and appointed general superintendent in charge of production, succeeding Steve Farish, who resigned the position. In one year, in the North Texas area, he held four different positions, viz., driller, tool pusher, district superintendent and division superintendent. With characteristic modesty, he describes this rapid rise to the rapid advancement of men above him. As general superintendent of the Humble company's production department, he had charge of operations in North, Central and South Texas, Louisiana and Arkansas. At one time, during the period when Smackover and Corsicana were both in the throes of development, he had 79 rigs running simultaneously. When Mr. Edwards resigned from the Humble company in 1931 he was succeeded by Dave Frame, now general superintendent of production for the company. After resigning, Mr. Edwards assembled drilling tools and entered the contracting business, starting in the Hobbs, New Mexico, Field. He has subsequently drilled wells in East Texas, Conroe, Goose Creek, and several in Louisiana. His company operates four strings of rotary tools. At present the company has one rig running for the Woodley Petroleum Co. and others at Church Point, Louisiana, and another preparing to rig up at Dickinson, Galveston County, on an 8,500-foot test for the Pure Oil Co.

HARRY L. EDWARDS



Rigging up one of the six tests of the Superior Oil Co. of California on its 6,500-acre block at Bosco in the corner of Acadia and St. Landry Parishes

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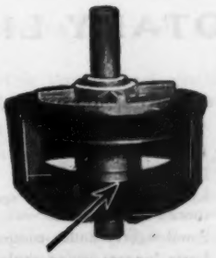
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New Bosco Well Producing From Deeper Sand; Showing in Deep Well in the Gueydan Field

By NEIL WILLIAMS
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Aug. 25.—Interest was revived in the Bosco Field, Acadia Parish, Louisiana, during the week when Superior Oil Co.'s No. 1 Looanstie Richard was completed flowing 749 bbls. the first 16 hours through a thirteen-sixty-fourths inch choke. The test is of special interest as it is producing from a deeper sand than the other three producers in the field. It is bottomed at 8,718 feet, whereas the other wells are producing from around 7,850 feet. The completion extends the field to the southeast, and indicates the trend of production in that direction as the area has been defined in other directions.

In the Roanoke area, Jefferson Davis Parish, Shell Petroleum Corp.'s No. 1 Jernigan, an east offset to the discovery well, Shell's No. 1 Kratzer, is preparing to drill plug after cementing 9⅝-inch casing at 7,465 feet. It is bottomed at 8,168 feet. This is a protection string of pipe as the producing horizon is around 8,650 feet. Humble Oil & Refining Co.'s No. 1 Kratzer, a half mile southwest of Shell's discovery well, encountered a show of oil between 7,786-89 feet, but is drilling ahead in sand and shale at 7,799 feet. Humble's No. 3 DeVilbiss, three-quarters of a mile southwest of the discovery well, is drilling below 8,400 feet in shale.

At Welch, also in Jefferson Davis Parish, Tide Water Oil Co.'s No. 1 Mrs. A. Bourgeois, south of the old shallow Welsh Field and the first well to be drilled in search of deep production in the area, made a five minute drill stem test of sand at 5,315-33 feet and recovered 800 feet of salt water through one-quarter inch choke on top and bottom. It cored sand from 5,363-68 feet and was preparing to make another drill stem test late in the week. This well originally was drilled to a total depth of 6,107 feet, plugged back to 5,050 feet and now is in sidetracked hole.

The Gueydan Field, Vermillion Parish, received considerable attention during the week due to the showing of Pure Oil Co.'s No. 6 Alliance Trust Co. It topped sand showing oil at 8,565 feet and is now reaming to cement casing. It is bottomed at 8,570 feet. Other wells in the field are producing from around 4,000 feet. The deepest test in the field was the same company's No. 2 Southwest Louisiana Land Co., which was abandoned in 1931 at a total depth of 8,007 feet.

In the New Iberia area, Iberia Parish, Harrison and Abercrombie have made an interesting location in Section 56-12s-7e. The location is of special interest due to it being northeast of Y. D. Spell's No. 1 Bernard which was completed some time ago for a 720-bbl. well through a three-eighths inch choke from a new sand found at around 3,800 feet. The test is 2 miles northeast of production and will be watched with much interest. It is located on the J. E. Schwing lease.

The Leesville Field, LaFourche Parish, had two completions during the week. Gulf Production Co.'s No. 6 Bernard was completed for 432 bbls. through three-eighths inch choke with a total depth of 3,773 feet. The same company's No. 4 Allen Land, on the extreme east side, was abandoned at 4,543 feet.

Harris County

In the north central part of Harris County, General Crude Oil Co.'s No. 1 Rorick estate, a wildcat in the John C. Ogburn Survey, is causing considerable excitement due to it having an odor of oil in a Cockfield sand from 6,431-46 feet. It tipped the Hockleyensis at 5,400 feet and the Cockfield at approximately 6,250 feet. Leases are reported to be selling as high as $100 an acre several miles from the test.

In Harris County, Farrell Brothers Drilling Co. has taken over the Kay Petroleum Co.'s No. 1 Brooks estate located in the R. and R. Vince Survey and are to start operation within the near future. The test is located east of Houston and has been shut down for several months.

Hamill & Smith's No. 1 Bender, west flank of the Pierce Junction Dome, Harris County, still was blowing out of control over the week end following a blow-out August 24 while drilling around 3,200 feet. Due to the possibility of the gas charging shallow sands on that side of the dome, the hole being uncased except for the surface pipe, no efforts have been made to kill it although the rig and boilers have been moved off. It is possible the well may kill itself by sanding. The well is in an old section of the field, where the operators have been drilling a series of wells in the last couple of months, getting production in sands from 3,000 feet down to 4,000 feet.

Benedum & Trees' No. 1 W. J. Settegast, on the west flank of the Pierce Junction Dome in Harris County, cemented casing at 5,760 feet and is drilling at 5,905 feet. This is a proposed 7,000-foot test and will be watched with much interest.

Frost and Paul Kayser, who have formed the Quaker City Oil Co., have taken over J. I. Lewis, trustee's No. 1 Goar in the Friendswood area, Harris County, abandoned some time ago at 6,262 feet, and are now coring in shale at 6,300 feet. It probably will be drilled to the Cockfield sand.

Hardin County

Wilcox Oil & Gas Co.'s No. 1 Sternberger, in the C. Dorsey Survey No. 1, northern Hardin County, and which was formerly abandoned at 6,014 feet, is to be deepened to the Cockfield. The Hockleyensis was topped at 5,562 feet. This test is several miles southeast of the Cleveland Field.

Victoria County

American Liberty Oil Co.'s No. 1 Prybil, R. Manchola Survey, located in the Coleto Creek area, western Victoria County, continues to flow around 300 bbls. of oil per day. It was shut in for a few days while storage was being erected and when opened up it continued to flow steadily. Two 500-bbl. tanks and one 5,000-bbl. tank have been erected. The oil is 21.7 gravity with a dark green color and is an excellent lub stock. Other specifications are: Flash, 225°, and fire test, 250°. A distillation run showed it to have a recovery of 9 per cent naphtha at 410°, 20.8 per cent kerosene at 510°, 68.2 per cent bottoms and 2 per cent loss.

Boling Dome

Boling Dome, in Wharton and Fort Bend Counties, is due to get two interesting tests in the near future. Midland Oil Co. is to drill a test to the Frio sand on the southeast flank. The acreage was acquired from J. L. Koulter in the S. Miller league. On the northwest flank, Allied Minerals is to start a 6,000-foot test within 60 days. The test is to be drilled in the center of a 1,400-acre block, in the John Huff Survey. Allied Minerals Co.'s No. 1 Farmer, on the east flank of the dome, which recently attracted interest to the dome when it opened up new production in the Frio, still is making around 10 bbls. an hour through three-eighths inch choke, with casing pressure 750 pounds and tubing pressure 325 pounds. It was completed for 700 bbls. daily from sand at 4,399-4,428 feet.

Houston County

The wildcat test of Boone Brothers, in the southern part of Houston County, which showed oil on drill stem test last week, has cemented casing at 2,022 feet and is now waiting on cement to set. It cored from 2,017-32 feet and recovered 2 feet of green shale, 2 feet of sandy shale and 3 feet of soft sand. On a drill stem test from 2,017-36 feet it tested 250 feet of drilling mud and 50 feet of dark green oil. It is on the Trinity Farm Land in the Charles McEllis Survey.

In the same county, Perry and Norman are trying to reassemble their 4,500-acre block centering around the J. S. Blunt Survey which expired some time ago.

Cleveland Area

Gulf Production Co.'s No. 5-C Kirby, in the Cleveland area, Liberty County, is due to be completed during the week. Based on top of the Hockleyensis, it has the appearance of making a producer, after picking up the Cockfield producing horizon. It is 933 feet west and 500 feet south of No. 4-C and is the sixth test to be drilled in the area, and if it makes a well it will be the fourth for the field. The following is a daily average production of each producer in the field for the week of last report: No. 1-C (discovery well), total depth 5,731 feet, flowed 160.83 bbls. through one-eighth inch choke, tubing pressure 1,700 pounds, casing pressure 650 pounds, no water; No. 2-C, total depth 8,734 feet, plugged back to 5,893 feet, flowed 215.40 bbls., 75 per cent b.s. and w., through three-eighths inch choke, tubing pressure 900 pounds, casing pressure 1,850 pounds; No. 4-C, total depth 5,861 feet, flowed 456.36 bbls., 4 per cent b.s. and w. through a quarter inch choke, tubing pressure 1,600 pounds, casing pressure 2,150 pounds.

Turnbull and Irwin and others have made an interesting wildcat location for a 7,500-foot test to be drilled in the James Robeson Survey, 11 miles north of Liberty and 2½ miles south of Wil-

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cox Oil & Gas Co.'s No. 1 Cousins, which was abandoned some time ago. The original block was assembled by Jack Frazier and spreads around the test have been sold to the Gulf, Humble, Atlantic, Sun, Magnolia and several independent operators. The drilling contract was let to the East Texas Drilling Co. The location is on the Lynott & Buffum lease and now is being cleared.

Conroe Pool

George W. Strake's No. 1-B Dean, on the west side of the Conroe Pool, Montgomery County, flowed 50 bbls. per day through three-eighths inch tubing choke, with 1,800 pounds on tubing and 1,700 pounds on casing. It has been killed and plugged back to 4,994 feet where it is waiting on cement to set. Hole will be sidetracked to the sand.

Shell Petroleum Corp.'s No. 1 Creighton, 3 miles west of the town of Conroe, topped the Cockfield at 4,529 feet and tested salt water from 4,568-75 feet. Bottom of hole now is at 4,851 feet where an electrical core survey will be made.

Refugio County

Heard-Holland Oil Co.'s No. 1 Peck, wildcat in the Bonnie View area, Refugio County, is preparing to deepen after swabbing from 1 to 3 bbls. of oil per day from a Frio sand at a total depth of 5,348 feet. In the Tom O'Connor area, same county, about 3½ miles southeast of the Greta Field, the discovery well of Quintana Oil Co. and Humble Oil & Refining Co., No. 1-A O'Connor, started making 50 per cent salt water and was killed and is being worked over. No. 2-A O'Connor, 400 feet north and 450 feet west of the discovery well, is drilling below 4,600 feet. The sand in No. 1-A is at a total depth of 5,575 feet. The same companies' No. 1-B O'Connor, located 6 miles south of the discovery well, is drilling below 4,710 feet and is reported to be checking favorably. It is being drilled on an entirely separate block and the outcome is being watched with much interest. It is located in the B.B.&B. Survey.

Jefferson County

Sun Oil Co.'s No. 1 Long, wildcat located in the Nome area, Jefferson County, caused some interest in that area during the week when it tried to blow out from sand at 8,585-89 feet. It showed some oil and blew 1,000 feet of mud from the hole before it was killed. It is probable that casing will be run to test it. Turnbull and Irwin and others' No. 1 Tolliver, S. Morris Survey, which has been an interesting wildcat for the county, was abandoned during the week at 5,566 feet in shale and lime. It is located in the extreme northern part of the county.

Galveston County

Humble Oil & Refining Co. is rigging up for its second test on the Dickinson (Sam Leon) prospect, Galveston County. This will be No. 1-B Maco Stewart, Sellers Survey, which is southerly from No. 1 Maco Stewart, which blew out several weeks ago while drilling at 7,916 feet. The latter has been temporarily abandoned but is looked upon as having proved up the prospect. Pure Oil Co.'s No. 1 Shelor, located 1,500 feet north of Humble's blowout, also is rigged up and about ready to spud. Gillock Petroleum Co. (C. & R. G. Drilling Co.) also is rigging up for a third active operation in the area, this to be on its block some 4 miles to the southwest of the above tests.

Wharton County

The Louise area, in Wharton County, was extended a mile southeast when Pure Oil Co. completed its No. 2 Charles T. Kountze for an initial production of 880 bbls. through a quarter-inch choke with gas estimated at 2,400,000 feet. It is bottomed at 5,218 feet, and is located in the Morris and Cummings Survey No. 19. This makes the fourth producer for the field.

Phillips Petroleum Co.'s No. 1 J. H. Drummond, located in the Vanderbilt area, Jackson County, was plugged back from 6,012 to 5,544 feet and preparing to sidetrack. This is the most westerly well from the discovery well. The company's No. 1 Siedel and Simmons, located in the Raymond Musquiz Survey, a short distance northeast of the discovery well, made a drill stem test from 5,800-5,812 feet and in 10 minutes it tested 5,000 feet of salt water through a quarter inch choke.

In the Garwood area of Colorado County, Coyle and Concord's No. 1 Nelson, located in Section 43, I.&G.N. Survey, was preparing to make an electrical coring test at 6,194 feet after it had encountered a showing of oil. Top of the Operculina was at 5,943 feet and the Hockleyensis at 4,004 feet.

Indian Territory Illuminating Oil Co. and others' No. 1 August Wrangler, New Ulm area, Austin County, made a 17-minute drill stem test from 3,911-80 feet through quarter inch choke on top and three-eighths inch on bottom and recovered three joints of mud and was drilling ahead below 4,035 feet in sandy shale at latest report. It is reported to be running slightly high and is an interesting wildcat test for the county.

Wildcat Operations on Gulf Coast

Week Ending August 25

RACCOON BEND—AUSTIN COUNTY

Humble O. & R. Co.'s No. 4-A McCasland, 1,305 ft. E of center cor. of McCasland and Geiske tract, and 565 ft. from N line of lease, Wm. White Sur.
Derrick.

Humble O. & R. Co.'s No. 7-X Gotosky, 466 ft. N and E lines of 150-ac. tract in W. C. White Sur.
Drlg. shale 6,220 ft.

Humble O. & R. Co.'s No. 7 Sherrod, W. C. White Sur.
Set csg. at 3,996 ft.; prepare to run screen; T.D. 4,115 ft.

Humble O. & R. Co.'s No. 15 Thompson.
Set csg. 1,142 ft.

DANBURY—BRAZORIA COUNTY

Shell Pet. Corp.'s No. 3 Haury, 800 ft. SE of No. 2 in line with No. 2 and No. 1 Blakely-Winston, E.&T.B. Sur. No. 13.
T.D. 6,290 ft.; to W.O. after blowout.

Shell Pet. Corp.'s No. 1-A Schmitt, 357 ft. E and 107 ft. from NW cor. of 146-ac. tract in J. H. Bruner Sur.
No report.

DAMON MOUND—BRAZORIA COUNTY

Esco's No. 1-D Wisdom, 25 ft. from S and W lines of Blk. D, Lot 5, A. Darst Sur.
lime and shale 1,165 ft.; S.D.

H. Wisdom's No. 1 Proctor, 40 ft. out of SW cor., Blk. 1, A. Darst Sur.
Set screen 1,530 ft.

MANVEL—BRAZORIA COUNTY

Gulf Prod. Co.'s No. 2 Colby, 991 ft. SE and 330 ft. NE of W cor. of Colby lease, Lot 31, T. Sprogging Sur.
Drlg. sand 5,134 ft.

Harrison & Abercrombie's No. 1 Bernard River Land, 1,000 ft. out of SE cor. of Lot 33.
Drlg. shale 4,626 ft.

Harrison & Abercrombie's No. 1 Elving, C of Lot No. 15, H.B.&T. Sur.
Rig up.

Max O. Milner's No. 1 H. F. Stipp, 330 ft. W of E line and 195 ft. N of S line of Lot 28, H.&T.B. No. 23 Sur.
Location.

Texas Co.'s No. 13-B Belcher, 194 ft. and 42 degrees 330 ft. N 48 degrees W from NE cor. of Helen J. Way lease in H. N. Little Sur.
Drlg. sandy lime 4,605 ft.

Texas Co.'s No. 1 Del Bell, 330 ft. E and 330 ft. S of NW cor. of Lot 11, Charles O'Donnell Sur.
Set 10-in. csg. 1,239 ft.; drlg. 3,177 ft.

Texas Co.'s No. 5 Houston Oil Field Assn., A.C.H.&B. Sur. No. 9 at C of Lot 22.
Set 10-in. csg. 1,106 ft.; drlg. 1,112 ft.

Texas Co.'s No. 2 Lieder, 646 ft. N, 330 ft. W of SE cor. of Lot No. 8, A.C.H.&B. Sur. No. 91.
Drlg. plug 3,993 ft.; set 7-in. csg. 3,973 ft.

Texas Co.'s No. 1-A Massey, 330 ft. out of NW cor. of 33-ac. tract in H. Stevens Sur.
Drlg. shale 5,579 ft.

Texas Co.'s No. 1 Rash, 330 ft. S, 42 deg. W, and 330 ft. S, 42 deg. E, from NW cor. of lease in Thos. Sproggins Sur. No. A-366.
Drlg. shale and lime 3,201 ft.

FLEDGER—BRAZORIA COUNTY

Danciger O. & R. Co.'s No. 3 Hunt, 300 ft. SW of No. 3-A in W. C. Carson Sur.
Pipe collapsed; skidded 40 ft. SW; T.D. 6,797 ft.

Humble O. & R. Co.'s No. 1 Bob McFarland, 525 ft. S, 1,900 ft. W of SE cor. W. C. Carson Sur.
Rig up.

STRATTON RIDGE—BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 1 Bowers, 2,400 ft. N line and 1,650 ft. from E line of Jared Groce Sur.
Drlg. 2,205 ft.; sandy lime.

WEST COLUMBIA—BRAZORIA COUNTY

Miramar Oil Corp.'s No. 3 Hogg, 100 ft. N of No. 2 and 100 ft. from W line of lease.
No report; former T.D. 5,394 ft.

Texas Co.'s No. 84 Hogg, 2,483 ft. N, 50 ft. W from SE cor. of lease in M. Varner Sur.
T.D. 5,034 ft.; P.B. to 4,700 ft.

BARBERS HILL—CHAMBERS COUNTY

Mills Bennett Prod. Co.'s No. 5-A Wilburn, 350 ft. W of No. 4, C of lease, Henry Griffith Sur.
R.U. to work over.

Mills Bennett Prod. Co.'s No. 10 Wilburn, 190 ft. S N line, 150 ft. W of No. 9, Henry Griffith league.
Set 10-in. csg. on bottom; T.D. 870 ft.

Humble O. & R. Co.'s No. 6-B Kirby, 693 ft. N of S line, 388 ft. E of W line of lease, or 125 ft. N and 288 ft. W of No. 5.
Fishing 4,880 ft.; produced 100 bbls. and quit flowing.

Humble O. & R. Co.'s No. 7-B Kirby, 200 ft. W of No. 6 in Henry Griffith league.
Derrick.

McAlbert Oil Co.'s No. 6 Woodward, C 5-ac. tract, W. H. Hodges Sur., 400 ft. W of No. 5.
Drlg. 4,551 ft.; shale and lime.

Moody Corp.'s No. 5-A E. W. Barber, 100 ft E of W line and 70 ft. N of S line of lease
Going in to sidetrack; T.D. 5,170 ft.; P.B. to 4,782 ft.

Moody Corp.'s No. 6-A Barber, 75 ft. W of E line and 400 ft. N of S line of lease.
Drlg. plug 4,216 ft.

Sinclair Prairie Oil Co.'s No. 18-A Wilburn Henry Griffith league, 150 ft. W of No 17-A and 14 ft. S N line of lease.
Cutting and pulling screen to deepen 4,347 ft.

Sun Oil Co.'s No. 6 Higgins, 302 ft. W of E line and 432 ft. N of S line of lease.
Drlg. rock 1,092 ft.

Sun Oil Co.'s No. 10 Higgins, 50 ft. from N and W lines of lease.
Drlg. shale and lime 1,554 ft.

Sun Oil Co.'s No. 17 Wilburn fee, 188 ft. E of W line and 40 ft. S of N line and 120 ft. W of No. 16.
Derrick.

Sun Oil Co.'s No. 22 J. Wilburn, midway between wells No. 17 and 21, or 150 ft. from each well.
Drlg. salt 1,435 ft.

Texas Gulf Prod. Co.'s No. 2 Eberspacher, 480 ft. from S line and center of strip No. 4.
Drlg. salt 2,130 ft.

Texas Gulf Prod. Co.'s No. 3 O. W. Winfree, 595 ft. S of N line and 50 ft. W of E line of lease.
Drlg. gumbo and shale 1,618 ft.

Yount Lee Oil Co.'s No. 25 Chambers County, 75 ft. S, 50 ft. W of NE cor. of lease.
Drlg. salt 1,730 ft.

Yount Lee Oil Co.'s No. 26 Chambers County, 50 ft. N of S line and in line with Chambers Co.'s No. 2 and Sun's No. 9 Chambers.
Drlg. cap rock 1,733 ft.

Yount Lee Oil Co.'s No. 27 Chambers Co., 400 ft. W of No. 24 and in line with Nos. 24 and 21.
Derrick.

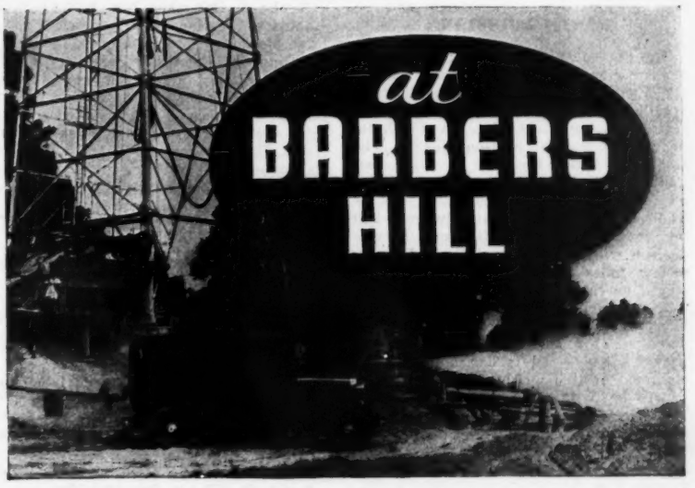
Yount Lee Oil Co.'s No. 28 Chambers County, 50 ft. N S line, direct offset to Sun's No. 10 Chambers County, Wm. Bloodgood Sur.
Derrick.

Yount Lee Oil Co.'s No. 9 Phillips, 100 ft. W of No. 8.
Drlg. shale and lime 796 ft.

BLUE RIDGE—FORT BEND COUNTY

Mills Bennett Prod. Co.'s No. 2 Luscher,

(Continued on Page 73)



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Two Dry Holes in Louisiana, One in Alabama Feature Week of Numerous Failures in Area

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Aug. 27.—Two dry holes that were promising North Louisiana wildcats and the failure of a closely watched test in Alabama featured last week's developments in this division. A wildcat test in Calhoun County, Arkansas, had barren results, and the week's completions as a whole reflected a bad period, listing 10 dry holes against three small producers. However, 12 new operations were staked in the North Louisiana and Arkansas districts to partially offset the failures.

NORTH LOUISIANA

On the so-called "Dubberly High" in the vicinity of Sibley, Webster Parish, the fourth failure in recent months was registered with the completion of the Gulf Refining Co.'s No. 1-A Crichton, near the center of Section 15-18-9. The test topped the Blossom at 2,548 feet and cored salt water sand from 2,550-58 feet, and was abandoned as dry at 2,840 feet. It checked slightly over 200 feet low on top of the Blossom in comparison with J. P. Evans' No. 1 Burson, a few miles to the south, which was logged as the highest well of any of the four tests drilled. The Gulf Refining Co.'s block consists of approximately 6,000 acres, all of which lies north of the three previous tests, and it has not been determined at this writing whether or not it will be further explored.

L. M. Moffitt and others' No. 1 W. H. Martin, Section 31-22-11, in the Rocky Mount area, Bossier Parish, is the second failure on a block of 17,000 acres in that vicinity. The test was dry and abandoned at 2,689 feet. Associated with Mr. Moffitt in the last well was the Magnolia Petroleum Co., and it is reported that another test will be drilled on the acreage. In Winn Parish, Red River Refining Co.'s No. 2 Tremont Lumber Co., Section 26-11-1w, the second test in that immediate vicinity in the past two months, was abandoned as dry at 1,463 feet. The top of the Wilcox was logged at 1,345 feet and salt water sand was cored from that depth to 1,377 feet.

The other rank wildcat to be a failure in this district was Kincaid & Kelly's No. 1 J. Ober, Section 5-14-10, Red River Parish. The test, started by these operators but finished by Tooke and others, was abandoned at 2,915 feet. The shallow Blanchard gas area in Caddo Parish listed one failure and the Zwolle Field, Sabine Parish, another. In the former, Louana Oil & Gas Co.'s No. 2 T. C. Lindsey, Section 34-19-16, was dry at 946 feet, and in the latter, Monroe Production Co.'s No. 1 Bowman-Hicks, Section 10-7-12, failed to make a commercial well after the use of acid and was abandoned at 2,480 feet. A shallow test in Caddo Parish that has been shut down during this year, C. D. Whittaker and others' No. 2 Barber, Section 21-22-15, was abandoned at 1,050 feet.

Small Producers

The Sunrise Petroleum Co.'s No. 2 Wemple, Section 14-12-11, DeSoto Parish, proved to be the second producer in a limited area. The well is flowing 25 bbls. daily through 2-inch tubing from 2,665 feet. In the Converse Field, Sabine Parish, Laurel Petroleum Co.'s No. 7 Frost Industries, Section 16-9-13, is pumping 150 bbls. daily from 1,961 feet, and Valley-Osage Oil Co.'s No. 1 H. A. Burkett, Section 10-9-13, is a 10-bbl. pumper from 1,963 feet.

All of the nine new locations staked in North Louisiana were in proven or semiproven territory. The United Gas Public Service Co. is rigging up on its No. 1 Giddens, Section 12-9-10e, East Carroll Parish. This company has held a large block surrounding the test for several years and has brought in a few small gassers from the upper gas sand in that area. Three new wells are listed in the Ouachita Parish area, and one in Union Parish, covered by the old Monroe gas field. Four new operations were reported in the Converse and Zwolle Fields.

Tooke & Reynolds' No. 1 Sprawls & Robinson, Section 8-15-6, located on a large block in Bienville Parish, is rigging up. None of the other drilling wildcats in this district developed anything of interest during the past seven-day period, but E. T. Oakes is not satisfied with a drill stem test made last week on his No. 1 Bryant, Section 30-13-15, DeSoto Parish, and will set liner to test with the bottom of the hole at 5,408 feet. A 6-foot core has been cut since the well tested 32 fourbles of drilling mud. Northeast of the city of Shreveport in Bossier Parish, John T. Anderson's No. 1 Leonard, Section 19-19-13, will make a drill stem test from 3,570-83 feet to test 5 feet of likely looking sand encountered.

ARKANSAS

There was only one wildcat completion in Arkansas, R. J. McMurray and others' No. 1 Calion Lumber Co., Section 3-16-14, in Calhoun County. The test was abandoned as dry in red shale at 3,205 feet. In the Urbana Field, Union County, the Marine Oil Co. had an even break out of two completions. Its No. 1 K. D. Parker, in the southwest corner of NE NW Section 2-18-13, was abandoned in salt water at 3,722 feet, and No. 2-B Union Saw Mill Co., southwest corner of SW NW in the same section, was completed pumping 75 bbls. daily of pipe line oil from 3,590 feet. An Arkansas County test, R. H. Allen and Ivan Wright's No. 1 Trice, Section 9-2s-3w, will not be completed, having been abandoned at 236 feet.

Testing Large Block

On a good sized block in Columbia County, Dudney & Woodward are rigging up on their No. 1 Pearce in Section 7-17-20. In Union County, the Lion Oil & Refining Co. has derrick up on its No. 10-A Flenniken, Section 10-16-15, and Sam M. Richardson has set 10-inch surface casing at 56 feet in his No. 2 J. P. Hammond in Section 19-17-15.

Benedum & Trees' No. 1 Bodcaw Lumber Co., Section 19-16-23, a deep test southwest of Stamps in Lafayette County, topped the anhydrites at 3,290 feet and is drilling in that formation at 3,515 feet. The Bloomburg Oil Corp.'s No. 1 Patterson, Section 5-19-28, in the southwestern part of Miller County, topped the Nacatoch at 1,960 feet and is coring for the Blossom slightly below the 3,000-foot level. If a likely core is cut from this horizon, a test will be made, but the well is being drilled to test a show in an offset well that was junked recently while testing the Woodbine below the 3,600-foot level. About 1½ miles southeast of the Bloomburg well, the Oil Well Oil Corp.'s No. 1 Burt Dodd, Section 10-19-28, has set 10-inch at 295 feet.

Northwest of the Miller County Field, King Oil Corp.'s No. 1 C. H. Schroder, Section 24-14-28, reports a corrected depth of 2,288 feet with a show of gas from hard sand from 2,275 feet to the total depth. The rig is temporarily shut down for boiler repairs. In the vicinity of the field, Duluth-Arkansas Oil Co.'s No. 3 Beck, Section 34-15-26, has set 7-inch casing at 2,934 feet to test 3 feet of sand from the bottom at 2,945 feet. In the same section, Arkansas Oil, Gas & Refining Co.'s No. 1 H. E. Beck is drilling at 1,500 feet after coring the Nacatoch at 789 feet. John Wrather's No. 1 E. H. Beck, Section 34-15-26, has experienced casing trouble but is running a string of tubing and the well has all of the earmarks of being a good producer from 2,932 feet. On the flank of the Stephens Field in Nevada County, O. F. Whittaker is drilling in hard lime on his No. 1-B Guttry, Section 2-15-20. A recently started Ouachita County test, T. J. Gaughan's No. 1 M. Bragg, Section 25-13-18, has spudded in and set 10-inch surface casing at 104 feet.

ALABAMA

This district reported one of the important completions of the week with the abandonment of the Magnolia Petroleum Co.'s No. 1 Scotch Lumber Co., Section 17-10n-3e, in Clarke County. The test was abandoned as dry in hard sand at a total depth of 6,010 feet.

Estimated daily production for the week ending August 25 follows:

NORTH LOUISIANA

	Bbls.
Bellevue	275
Caddo light	4,510
Caddo heavy	1,550
Converse	1,965
Cotton Valley	500
DeSoto and Red River	1,400
Elm Grove	385
Haynesville	3,800
Holly	180
Homer	2,675
Pleasant Hill	205
Sarepta-Carterville	670
Urania	3,115
Zwolle	3,160
Total	24,390

SOUTH ARKANSAS

Champagnolle	1,200
El Dorado	2,415
Lisbon	350
Miller County	1,350
Nevada	915
Smackover light	2,385
Smackover heavy	19,590
Stephens	625
Urbana	2,590
Total	31,420

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

AVOYELLES PARISH

Bell Oil Co.'s No. 1 Woodley, 330 ft. S and W NE cor. NW Sec. 11-3n-5e.
S.D. 1,700 ft.

Haas & Stokes' No. 1 Lindstrum Land Co., 630 ft. S, 930 ft. E, NW cor. Sec. 34-1n-4e.
Set 12-in. 40 ft.

BIENVILLE PARISH

Saline Drlg. Co.'s No. 1 Pardee, Sec. 27-14-6.
Set 10-in. 142 ft.

BOSSIER PARISH

Bossier O. & G. Co.'s No. 1 Sherrill, 300 ft. S and W, NE cor. Sec. 18-9-13.
S.D.; W.O. 2,361 ft.

Dickinson & Pearce's No. 1 Buckelew, 400 ft. N, 55 ft. W, SE cor. NE NE Sec. 16-19-11.
Set 10-in. 100 ft.; set 6-in. 320 ft.; T.D. 415 ft.

Dickinson & Pearce's No. 1 Taylor, 160 ft. S and W, NE SW NE Sec. 16-19-11.
Set 6-in. 408 ft.; W.O.S.R. 425 ft.

Howard & Baird's No. 1 Gold, 150 ft. S and E, NW cor. Sec. 36-20-13.
S.D. for water 1,126 ft.

L. M. Moffitt et al's No. 1 Martin, 330 ft. N and E, SW cor. NW SW Sec. 31-22-11.
Dry and abd. 2,689 ft.

McKinney & Stewart's No. 1 Nattin, 470 ft. W, 630 ft. S, NE cor. Sec. 23-22-14.
S.D. 2,973 ft.

Producers O. & G. Co.'s No. 1 Weiner, 660 ft. N and W, SE cor. Sec. 7-17-11.
Fishing for D.S. 3,984 ft.

CADDO PARISH

Ark.-La.-Tex. O. & G. Co.'s No. 1 Simon, 330 ft. N and E, SW cor. Sec. 15-20-15.
Drlg. 2,000 ft.

W. T. Bell et al's No. 1 Bostick, 1,320 ft. E, 660 ft. N, SW cor. Sec. 12-22-16.
S.D. for water. 2,540 ft.

S. Bender's No. 1 Starr, 150 ft. N, 195 ft. E, SW cor. SW Sec. 26-20-16.
Drlg. 1,726 ft.

Blunt et al's No. 1 Perry, 200 ft. S and E, NW cor. SE SW Sec. 3-20-16.
Set 7-in. 1,030 ft.

Burkett O. & G. Co.'s No. 1 Lindholm, 400 ft. S and E, NW cor. NE SE Sec. 15-17-14.
S.D. 1,046 ft.; repairing rig.

Capitol O. & G. Co.'s No. 1 Noel Est., 300 ft. S and E, NW cor. NE Sec. 13-20-16.
S.D. 450 ft.

A. D. King, tr.'s No. 1 Roach, 641 ft. E, 375 ft. N, SW cor. SE Sec. 4-14-16.
S.D. 1,128 ft.

Simplex Oil Co.'s No. 9 Youree-Randolph, 660 ft. S and W, NE cor. SE Sec. 13-20-15.
P.B., set 6-in. 1,778 ft.

Simplex Oil Co.'s No. 1 Glassell, 330 ft. S and E NW cor. Sec. 23-20-15.
Drlg. 1,800 ft.

CALDWELL PARISH

Terrell & Price's No. 1 La. Central Lbr. Co., 300 ft. N, 200 ft. W, SE cor. NW NE Sec. 15-11-3e.
Coring 3,265 ft.

DE SOTO PARISH

L. H. Alderson's No. 1 Peek, SE cor. NW NE Sec. 25-11-13.
S.D. for wtr. 3,030 ft.

Bayou Pierre Oil Co.'s No. 1 B. Y. Wemple, C SE NE SW Sec. 14-12-11.
Rigging up.

Jack Clarke's No. 1 Moore, 330 ft. S and W NE cor. NW Sec. 1-13-15.
S.D. 1,675 ft.

Dempsey & Manziel's No. 1 Thigpen, 375 ft. S, 330 ft. W, NE cor. SW NE Sec. 33-13-13.
Coring 1,610 ft.

Hester et al's No. 1 Alston, 330 ft. S and W of center of Sec. 11-11-16.
Drlg. 550 ft.

George Le Grande's No. 1 Vance, 180 ft. N and W SE cor. SW Sec. 34-12-16.
Rigging up.

Sunrise Pet. Co.'s No. 2 Wemple, 739 ft. N, 956 ft. E SW cor. NW SW Sec. 14-12-11.
Comp. flowing 25 bbls., 2,665 ft.

Texas Co.'s No. 13-A Wemple, Sec. 1-12-12.
Fishing for D.S., 3,544 ft.

J. S. Tuffree's No. 1 McGill, 450 ft. N, 150 ft. W, SE cor. SW SE Sec. 1-16-15.
S.D. 3,125 ft.

EAST CARROLL PARISH

United Gas Public Service Co.'s No. 1 Giddens, 659 ft. W, 1,349 ft. S, NE cor. Sec. 12-19-10e.
Rigging up.

MOREHOUSE PARISH

Zeiger & Bacon's No. 1 Crossett, 400 ft. N, 300 ft. W, SE cor. Sec. 41-23-6e.
T.A. 3,111 ft.

NATCHITOCHES PARISH

Clyde Crichton's No. 1 Friedman Est., 406 ft. N, 428 ft. E, SW cor. Sec. 52-7-6.
S.D. for wtr., 1,088 ft.

Jack Let's No. 1 Brown Lbr. Co., 400 ft. S, 300 ft. E, NW cor. NE SW Sec. 37-9-13.
Set 10-in. 21 ft.

Missouri Drlg. Co.'s No. 1 Brown Lbr. Co., 400 ft. N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,033 ft.

Roy A. Raines et al's No. 1 Raines est., 330 ft. N and E, SW cor. Sec. 23-9-10.
W.O. casing 2,360 ft.

J. B. Storey's No. 1 W. W. Page est., NE cor. SE NW Sec. 18-8-9.
S.D. 1,544 ft.

OUACHITA PARISH

Carbons Consolidated's No. 8 Guthrie, 1,550 ft. N 350 ft. W of SE cor. Sec. 21 in Sec. 50-20-4e.
Testing 2,148 ft.

Carbons Consolidated's No. 4 Cole, 663 ft. S, 1,969 ft. W, NE cor. Sec. 36-20-4e.
P.B. to 2,174 ft.

Maury Drlg. Co.'s No. 3 Frierson, Sec. 30-19-4e.
Set 12-in. 156 ft.

United Carbon Co.'s No. 3 Cole, 1,320 ft. N, 561 ft. E. SW cor. Sec. 25-20-4e.
Comp. 1,150,000 ft. gas 2,179 ft.

United Public Service Co.'s No. 2 fee, 660

(Continued on Page 75)

New Pool Is Opened in Central Rooks County; Federal Allocation Reduced 10,500 Barrels

By JAMES McINTYRE

Five dry holes, two locations abandoned, 22 oil wells for a combined initial production of 11,705 bbls. and 19 first reports, leaving a total of 225 operations scattered throughout the State, was the record in Kansas during the past week. Rice County led the field of counties in new production getting 3,740 bbls. from three completions with Reno County placing second with 1,992 bbls. coming from three wells. One wildcat test in Rooks County, Ashby and others' No. 1 Doughty, C SW SW Section 15-8-19w, which topped the Oswald lime at 3,186 feet, got the pay streak from 3,215-25 feet, total depth, filling the hole 1,700 feet with oil in 18 hours and on a swabbing test produced 3 bbls. of 35 gravity oil per hour. It was not completed and further testing was in store with the possibility of deeper drilling.

The Federal crude oil allocation for the United States for the month of September allotted the State of Kansas 120,700 bbls. daily for its share, an 8 per cent reduction from the August allowable of 131,200 bbls., amounting to 10,500 bbls.

Rice County

Another fair sized well was added to the Raymond Pool of Rice County when the Texas Co. completed its No. 4 West, NE SW NW Section 21-20-10w, in Siliceous lime found at 3,334-42 feet, total depth, for 1,273 bbls. on the pump.

Continental Oil Co.'s No. 2 Foote, NW SE Section 7-20-9w, Sharpe Pool of Rice County, was completed for 1,018 bbls. on its potential test, the Siliceous lime from 3,255-92 feet, total depth, having been acidized to yield the production.

About 1½ miles southeast of the Brandenstein Pool of Rice County, James Davis' No. 1 Katterjohn, SW cor. Section 13-19-10w, finding Siliceous lime from 3,293 to 3,314 feet good for only 1 bbl. of oil per hour mixed with water, was deepened to 3,338 feet, total depth, where a hole full of water was encountered and the test was abandoned.

The south limit of the Beyer Pool of Rice County has been well established with the drilling of three dry holes and indications that a fourth failure is due is had in the National Refining Co.'s No. 2 Reese, a hole full of water at 3,288 feet. Total depth was 3,315 feet and a fishing job was in progress. Sand at 1,991-2,005 feet produced 11,000,000 feet of gas and at 2,958 feet the hole filled up with 1,000 feet of oil which was later drowned out with water intrusion after treating with acid.

The Gypsy Oil Co. and C. B. Davis combination in the Chase Townsite Pool of Rice County has been quite successful and they have completed their No. 2 Christopher, NE SW SE Section 31-19-9w, for a potential gauge of 1,449 bbls. on the pump 20 hours. Production is coming from Siliceous lime formation found at 3,222-41 feet, total depth.

The Raymond Pool drew the only new start in Rice County during the week in the Texas Co.'s No. 6 West, NW cor. Section 21-20-10w, which had cellar dug.

Barton County

In the Ellinwood Pool of southeastern Barton County, cable tools were being rigged up on Stanolind Oil & Gas Co.'s No. 1 Jutling, C SE NE Section 16-20-11w, 7-inch casing had been set on top of Siliceous lime logged at 3,300 feet, and the hole cored to 3,305 feet, total depth, showing oil.

The wildcat test of Atlantic Oil Producing Co., No. 1 Straub, C SE NW Section 36-18-11w, Barton County, about 4½ miles west of the Orth Pool in Rice County, the nearest production, had been completed for 45 bbls. of oil and 15 bbls. of water for one day's gauge on the pump. Siliceous lime was drilled from 3,286 to 3,313 feet, total depth, showing water in base and well was plugged back to 3,310 feet and acidized to yield its oil production.

Russell County

In southwestern Russell County plans were to acidize the Siliceous lime in Empire Oil & Refining Co.'s No. 1 Bender "C," NE NW NE Section 26-15-14w, which put 2,200 feet of oil in the hole in four hours. Total depth was 3,353 feet, 7 feet in the lime formation.

Alyward and others' No. 1 Holland, NE cor. Section 28-13-14w, Russell County, topped the Oswald lime at 3,013 feet and showed oil at 3,015 feet, oil and water at 3,045-50 feet and a hole full of water at 3,097 feet. Six-inch casing was run to 3,194 feet shutting off the water and a pay streak from 3,195-3,204 feet, total depth, liberated 560 bbls. of oil in 24 hours after acid treatment.

In the Russell Pool of Russell County, Texas Co.'s No. 3 Jacobs, NW SW Section 31-12--15w, topped the Oswald lime at 3,006 feet, and cutting same to a total depth of 3,081 feet, pumped 183 bbls. after acidization.

In northwestern Russell County, Pat Ashby's No. 1 Whitson, NW SW SW Section 16-11-15w, topped Oswald lime at 2,980 feet and at 4 feet in got a show of oil and a hole full of water which was shut off with 5-inch casing set at 3,130 feet. At 3,175 feet, total depth, well swabbed 200 bbls. naturally in 24 hours and it was completed after acid increased production on pump to 540 bbls. of oil.

The new operations for Russell County follow: Tom Palmer's No. 3 Borrell, SE cor. Section 21-13-14w, building rig; Central Petroleum and T. O. Johnson's No. 3-A Sutton, SW NE SW Section 5-12-15w, rigging up cable tools at 2,284 feet to deepen; E. Liggett and others' No. 1 Stewart, NE SE SE Section 17-11-15w, cellar.

McPherson County

In the Voshell Pool of McPherson County, Shell Petroleum Corp.'s No. 2 Koehn, NW SE NE Section 16-21-3w, was a Wilcox sand completion, sand found at 3,398-3,414 feet, total depth, being shot with 20 quarts and 30 quarts to produce on the pump a daily average of 271 bbls. on a three days' test.

Stafford and others' No. 1 Krehbiel, NW SE Section 27-21-3w, McPherson County test, which was shut off from production in both the Voshell and Nikkel Pools by dry holes, was abandoned at 1,916 feet, total depth.

In the Nikkel Pool, McPherson County, Derby Oil Co. has recompleted its No. 3 Hamm, SE NE Section 33-21-3w, basing Hunton lime at 3,469 feet and stopping at a total depth of 3,490 feet, pumping 1,576 bbls. of oil.

An apparent Wilcox sand failure at a total depth of 3,642 feet, Mabee Oil Co. and Shell Petroleum Corp.'s No. 8 Friensen, 330 feet north and 1,325 feet east of SW cor. Section 33-21-3w, was to be plugged back in an attempted water shutoff. Well is in the Nikkel Pool of southern McPherson County.

In the Ritz-Canton sector of McPherson County, Shell Petroleum Corp. got a nice well in its No. 6 Giffin "A," SE SW NW Section 14-19-2w, Viola lime logged at 3,367-76 feet, total depth, which swabbed 8 bbls. per hour naturally, was acidized to yield 525 bbls. on a 21-hour pumping test.

Mid-Kansas Oil & Gas Co.'s No. 3 Garrett, NE SE NE Section 30-19-1w, McPherson County, Ritz-Canton Pool, was completed for 174 bbls. of oil and 400 bbls. of water, daily average on a three days' pumping test, production was from Viola lime topped at 3,417 feet which was penetrated to a total depth of 3,430 feet. It had been acidized.

In the Johnson Pool of McPherson County, Roth & Farout's No. 1 Swanson, NE SW NE Section 13-19-3w, originally a gas well in the Chat formation, was deepened, finding oil pay from 3,007-10 feet, total depth, still in Chat and flowing 476 bbls. of oil with an estimated 1,000,000 feet of gas for its completed gauge.

Harvey County

The Nikkel Pool of northern Harvey County appeared to be getting a quarter mile extension to the west in Shell Petroleum Corp.'s No. 5 Voth, C N half N half NW Section 4-22-3w, 7-inch casing was set on top of Hunton lime at 3,484-87 feet, total depth, which had an oil showing and cable tools were being rigged up preparatory to drilling in.

Sinclair Prairie Oil Co.'s No. 3 Ediger, NE SE SW Section 1922-3w, Hollow Pool of Harvey County, an old well drilled deeper from 3,365 feet, found Wilcox sand from 3,491-3,535 feet, total depth, swabbing 30 bbls. natural in 20 hours. Sand from 3,502-32 feet was shot with 30 quarts to yield 607 bbls. on the pump.

In north central Harvey County, the wildcat test of F. H. Hollow and others, No. 1 Summerfelt, NW NE NW Section 8-22-1w, was drilling at 3,001 feet with water intrusion, starting at 2,984 feet, gradually increasing at the deeper depth. Mississippi lime was topped at 2,938 feet and 8-inch casing set at 2,968 feet will no doubt be lowered in an attempt to get a water shut-off.

Preparations were under way to deepen the Texas Co.'s No. 2 Andrees, NE NW NW Section 8-22-3w, Hollow Pool of Harvey County, which was completed in August, 1933, for around 2,500 bbls. of oil and 12,000,000 feet of gas in the Chat found at 3,156-3,193 feet, total depth.

Reno County

L. H. Wentz's No. 11 Metcalf, SE NE SW Section 3-24-7w, wildcat test in the heart of Reno County, had a hole full of water in the top of the Chat at 3,697 feet and was drilling ahead at 3,811 feet.

The Haury Pool of Reno County registered with two completed oil wells during the past week. Barnsdall Oil Co.'s No. 3 Sabin "B," SE NW NE Section 11-23-4w, logged Chat at 3,255-3,376 feet, total depth, which flowed 149 bbls. of oil with 12,000,000 feet of gas for its complete gauge. Production will be used for lease fuel. On the same lease, well No. 4, NE NW NE, passed up the Chat and found Hunton lime from 3,599-3,600 feet, total depth, good for 1,573 bbls. on the pump for its completed gauge.

A little farther south in Reno County in the Burrton Pool, arrangements were being made to acidize the National Union

Wildcat Operations in Kansas

Week Ending August 25

(Descriptions are East unless marked otherwise)

BARBER COUNTY

Indian Territory Illuminating Oil Co.'s No. 1 George, C SE SW Sec. 12-33-10w.
Mississippi lime 4,394 ft.; coring 4,786 ft. in Wilcox; no show.

Lario O. & G. Co.'s No. 1 Whelan, C NW Sec. 32-31-11w.
Chat 4,355-4,435 ft.; P.B. to 4,395 ft.; swbd. 225 bbls. oil and 400 bbls. wtr.; P.B. to 4,380 ft.

BARTON COUNTY

Atlantic O. P. Co.'s No. 1 Straub, C SE NW Sec. 36-18-11w.
Siliceous 3,286-3,313 ft., T.D.; P.B. to 3,310 ft.; acidized; pumped 45 bbls. oil and 15 bbls. wtr. in 24 hrs.; comp.

Gypsy Oil Co. and Atlantic Prod. Co. and Shell Pet. Corp.'s No. 1 Batchman, C SW NE Section 18-20-12w.
Drlg. 1,650 ft.

Harris & Haun and J. Brook's No. 1 Dietz, NE SW Sec. 21-16-15w.
Oswald lime 3,310 ft.; drlg. 3,337 ft.

Murphin and Downing's No. 1 Lanterman, NW SE Sec. 15-19-11w.
Rigging up.

National Ref. Co.'s No. 1 Ingersoll, C NW NE Sec. 2-19-13w.
T.D. 2,180 ft.; rebldg. rig.

C. L. Price et al's No. 1 Ehrlich, NW SE Sec. 10-16-13w.
Rig.

Walter Shearen et al's No. 1 Kempler, SE NE NE Sec. 31-18-11w.
S.D. 300 ft.

BUTLER COUNTY

F. H. Unruh et al's No. 1-A Joseph, SE SW NW Sec. 18-25-4e.
Location.

CLAY COUNTY

Seidel Bros.' No. 1 Yonkers, C S½ SE NW Sec. 21-9-4.
T.D. 1,225 ft.; S.D.

COWLEY COUNTY

National Refining Co.'s No. 1 Robinson, NE SE NE Section 11-34-4.
T.D. 1,895 ft.; fishing.

Otstot et al's No. 1 Eckhardt, SE NW Sec. 15-35-6.
Spudded and S.D. for wtr.

Wakefield et al's No. 1 Weigle, NW SE SE Sec. 6-32-6.
Rig.

DICKINSON COUNTY

Dutch Oil Co.'s No. 1 Phillips, C NE NW Sec. 15-15-1e.
Drlg. 2,325 ft.

ELLIS COUNTY

Ashby et al's No. 1 Mermis, NW cor. NE Sec. 34-13-16w.
Spudded and S.D.

ELLSWORTH COUNTY

Elwell et al's No. 1 Campbell, SW cor. Sec. 20-17-7w.
Drlg. 2,505 ft.

GREENWOOD COUNTY

Greeley et al's No. 1 Satler, SW SE SW Sec. 28-25-12.
S.D. 325 ft.

HARPER COUNTY

R. G. Berry's No. 1 Anthony, C SW SW Sec. 17-31-9w.
8-in. 4,516 ft.; T.D. 4,521 ft.; R.U. standard tools.

HARVEY COUNTY

Hollow et al's No. 1 Summerfelt, NW NE NW Sec. 3-22-1w.
Mississippi lime 2,938 ft.; wtr.; drlg. 3,001 ft.

Wenzel et al's No. 1 Schrag, NW SE Sec. 24-22-3w.
Spudded and S.D.

KINGMAN COUNTY

W. C. McBride, Inc.'s No. 1 Wolbridge, NW SE Sec. 16-27-7w.
H.F.W. in Kansas City lime; drlg. 3,345 ft.

McPHERSON COUNTY

Marileen Oil and Goering Bros.' No. 1 Decker, NW cor. SE Sec. 20-18-1w.
Drlg. 2,875 ft.

Tom Palmer and Phillips Pet. Co.'s No. 1 Moddelmog, NE NE NW Sec. 8-21-1w.
Drlg. 2,005 ft.

OSAGE COUNTY

Jim Edwards' No. 1 Detrich, C NW SE Sec. 21-14-15
Rig; S.D.

OSBORNE COUNTY

Carmen & Hershey's No. 1 Fritz, C NE NE Sec. 9-10-14w.
S.D. 700 ft.

RENO COUNTY

Foraker et al's No. 1 Hiett, SE SW NW Sec. 34-24-4w.
Ponds and cellar.

Hartman Oil et al's No. 1 Stone, C NW NW Sec. 15-24-4w.
Drlg. 2,970 ft.

(Continued on Page 73)

Oil Co.'s No. 1 Ackley, C SE SE Section 14-23-4w, which flowed an estimated 40 bbls. of oil per day from the Chat topped at 3,262 feet. Total depth was 3,409 feet.

Sinclair Prairie Oil Co. has completed its No. 5 Base, C SW SE Section 26-23-4w, Burrton Pool of Reno County, finding the Chat from 3,229-3,372 feet, total depth, good for 370 bbls. of oil after acid treatment.

Dickey and others were getting a nice producer in their No. 1 Baughman, C NE SW Section 36-23-4w, Burrton Pool of Reno County, flowing 65 bbls. for a one-hour gauge after Chat formation from 3,275-3,366 feet, total depth, had been acidized. The well flowed 671 bbls. in 24 hours before treatment of acid.

Kingman County

Skelly Oil Co. completed its No. 4 North Miles, Cunningham Pool of northwest Kingman County, for 141 bbls. of oil and 1,000,000 feet of gas. Production is coming from Kansas City lime at 3,423-3,505 feet, total depth, which had been acidized, and the well is located 440 feet north and 440 feet east of the SW cor. SE of the section.

The wildcat test of W. C. McBride, No. 1 Wooleridge, NW SE Section 16-27-7w, northern Kingman County, topped Kansas City lime at 3,143 feet, found a hole full of water at 3,265 feet and was drilling ahead at 3,345 feet.

Kingman County registered a new location in the staking of the Skelly Oil Co.'s No. 1 Kimble, SW NW NE Section 29-27-10w.

Sedgwick County

About one-half mile west of the town of Schulte, E. B. Shawver and others' No. 1 Schulte, NE cor. Section 13-28-2w, Sedgwick County, which had a hole full of water in the Simpson formation from 3,715-73 feet, total depth, was to be plugged back for a test of the Chat logged at 3,418 feet, which had a show of oil in the upper section.

On the north edge of Sedgwick County, Sovereign Oil Co. has abandoned its No. 1 Nichols, C SW SE Section 20-25-1w, total depth being 2,896 feet. A hole full of water was encountered at 2,855-60 feet.

In the same area Connell and others' No. 2 Cross, NE SE NE Section 27-25-1w, Sedgwick County, was dry and abandoned at 2,761 feet, total depth, getting water from 2,720-45 feet.

Sedgwick County continues to be well thought of as a potential producing area which is borne out with the staking of five new locations, three of which are in wildcat territory. The list is as follows: Gypsy Oil Co. and others' No. 1 Tammany, NW NE Section 4-29-1w, a wildcat, rigging up; Allison & Fitzwilliams and others' No. 1 Struthers, NE SW SW Section 34-28-2w, a wildcat, cellar dug; Lassen and others' No. 1 Wall, C SE SW NE Section 4-28-1, total depth 3,100 feet, cleaning out to deepen; Solar Oil Co. and Skelly Oil Co.'s No. 17 Wilson, C SE NE Section 1-26-1w, location; Shell Petroleum Corp.'s No. 4 Lygrisse "A," NW SE NE Section 15-26-2e, old well drilling deeper, base Mississippi lime 3,105 feet, 6-inch 3,161 feet, bailing.

Barber County

In eastern Barber County, the wildcat test of the Indian Territory Illuminating Oil Co. and others, No. 1 George, C SE SW Section 12-33-10w, has passed through the Mississippi lime, Hunton lime, Viola lime which cored a show of oil, Simpson dense, and was coring 5 feet in Wilcox sand at 4,786 feet with nothing showing.

Rush County

Rush County registered no completions but drew one new start in Schlegel & Turner's No. 1 Schmidt, C SW SE Section 10-17-15w, a wildcat location with cellar dug.

Ellsworth County

In the Stratman Pool of Ellsworth County, Eldorado Refining Co.'s No. 9 Stratman, SW NW SE Section 1-17-10w, was completed for 429 bbls. net oil with 2 per cent of water, production coming from the Siliceous lime penetrated from 3,257-62 feet, total depth.

Ellis County

Ellis County drew a new operation during the past week in Phillips Petroleum Co.'s No. 2 Horn, C NW SW Section 5-12-17w, which has the rig built.

Marion County

Harwood Oil Co. had completed its No. 3 Cowman, NW SE SW Section 11-17-4, northeastern Marion County, penetrating Chat formation from 2,343 to 2,378 feet, total depth, which was good for 127 bbls. on the pump.

Chase County

Two new locations were staked in the recently active spot of southeastern Chase County, the stimulus being the completioon recently of a 160-bbl. Bartlesville sand well by Slick Estate and others in the SW NE Section 25-22-9. The new locations are Slick Estate, Pryor & Lockhart's No. 2 Leedy, SE SW NE Section 25-22-9, location, and same operators' No. 3 Leedy, NW SW NE Section 25-22-9, location.

Greenwood County

In the Virgil district of Greenwood County, Shull Drilling Co.'s No. 1-B Hinchman, SW NE Section 17-24-13, tested Mississippi lime 1,612-31 feet, total depth, which showed water in base, but it was plugged back to 1,628 feet, acidized and completed for 3 bbls. daily on the pump.

Dalton and others' No. 1 Sauder, CNL NW NW Section 19-23-13, Virgil Pool of Greenwood County, was a Wilcox sand failure, getting sand from 2,002-80 feet, which showed some oil and gas but at a total depth of 2,084 feet, hole filled up with water and it was abandoned. The Mississippi lime logged at 1,663-67 feet also showed water.

Aikman & Braden's No. 3 Clark, NE SE NE NW Section 27-22-13, Greenwood County, was completed for 8 bbls. of oil daily, production coming from acidized Mississippi lime from 1,856-75 feet, total depth.

Phillips Petroleum Co.'s No. 6 Pixley, NW SE NW Section 10-22-10, Pixley-Teeter Pool of Greenwood County, was dry and abandoned at 2,313 feet, total depth, 59 feet in Bartlesville sand topped at 2,254 feet.

Greenwood County got only one first report for the week, that being Carl Simmons and others' No. 5 Winegar, SE NE SE Section 27-23-11, rigging up.

Butler County

In northwestern Butler County, Vickers Petroleum Co. was pulling big pipe in its No. 1 Hughes, C W half SW NW Section 36-24-3, which topped Mississippi lime at 2,707 feet, pay from 2,717-19 feet, total depth, filling the hole 600 feet with oil in 12 hours.

Scanlon & Bradley were drilling at 240 feet in their No. 1-A Joseph, C SE NE Section 36-24-3, Butler County, and a new operation for the past week.

Elk County

Elk County had nothing of interest to offer to the week's news except the abandonment of two locations by the Diller Oil & Gas Co. in its No. 2 Keys, NE SE NE Section 26-31-10, and its No. 3 Keys, NW SE NE Section 26-31-10.

Cowley County

In central Cowley County, Patton and others' No. 2 Sitton, SW NW Section 29-31-6, found Bartlesville sand 2,882-2,947 feet, total depth, good for 308 bbls. of oil with a small show of water on a swabbing and flowing test after it had been given a 60-quart shot.

Sumner County

Almost on the Oklahoma-Kansas boundary line, and in extreme southern Sumner County, L. H. Wentz and others were moving in materials for their No. 1 Horsley, a wildcat location in the CSL SW SW SW Section 18-35-1.

Phone 2-4432 Tulsa, Oklahoma

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Production Being Curtailed in California Fields as Demand for Gasoline Continues to Decline

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Aug. 27.—Beginning with September and for the succeeding several months during the winter season, California operators will be obliged to effect a further curtailment of production in order to take care of the usual seasonal drop in demand. For the month of September, the petroleum administrator reduced the State's allowable production of crude oil 33,200 bbls. per day, which brought the allowable down from 490,200 bbls. to 457,000 bbls. daily. The reduction in allowable has been anticipated due to the substantial decline in gasoline sales during July. Gasoline stocks increased 693,437 bbls. during July and have shown a further tendency to accumulate during August.

The Central Committee of California Oil Producers, officially recognized by the petroleum administrator as the agency to allocate production, has decided that allocation for the month of September will be a combination of the graduated and percentage methods. Pool quotas will be established as heretofore but the formula will be predicated on a new basis. In order to discourage transfers of quotas, the committee has decided to impose a penalty on operators who seek transfers in the San Joaquin Basin and allocate all such penalties to smaller operators who are unable to make such transfers. The producible allotment during September will probably be somewhat below the established allowable due to the policy of suspending a certain percentage of the allowable to take care of new wells finished during the producing period. If this policy is followed during the forthcoming month, the producible allotment should be somewhere in the neighborhood of 450,000 bbls. per day.

Development at Edison

The Edison area of Kern County is still attracting operators and, despite the fact that favorable acreage has been at a premium for the past several weeks, development work continues at a brisk rate with new wells being started every few days. This field is rapidly nearing the point where completions will begin showing its importance from a production standpoint.

No. 1 Daugherty of the A. T. Jergins Trust is holding up in good shape after the company had washed out the hole with 150 bbls. of hot oil. The well is pumping 55 bbls. of exceptionally clean 16.7 gravity oil per day from 1,186 feet. The Centralia Oil Co. has concluded drilling operations on No. 1 Ubanks and this well, bottomed at 2,324 feet, should be given a production test within the next few days. There are several new wells being started in this field and reports indicate that this group will be augmented by an additional number early in September. Wells being started at present include Mohawk Petroleum Co.'s No. 1 Weichelt; McIntyre-Losche's No. 1 Welch; Mitchell-McMillan Co.'s No. 1 in Section 8-30-29, and E. C. Fairfield's No. 1 in Section 15-30-29. The Shell Oil Co. has two wells nearing the point at which they should be completed if the pay underlies the properties, and the Ohio Oil Co. is making hole on one test on the Cauley lease in Section 36-30-29. Wildcat operations in the Comanche Point district southeast of the Edison Field have been temporarily suspended.

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	August 12		August 5			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Fuel oil	466,762	66,680	254,382	36,340	9,335,454	805,661
Diesel and gas oil	.....	.....	.....	.....	1,000,056	1,200,559
Gasoline	75,316	10,759	196,575	28,082	4,659,703	6,370,482
Kerosene	.....	.....	.....	.....	648,080	508,895
Asphalt	.....	.....	.....	.....	70,019	12,179
Other finished oil	.....	.....	.....	.....	54,778	75,318
Other unfinished oil	.....	.....	.....	.....	.....	72,584
Foreign exports—						
Crude oil	184,346	26,335	151,622	21,660	4,844,873	4,321,131
Fuel oil	398,045	56,864	421,412	60,202	7,987,249	4,925,413
Diesel and gas oil	57,704	8,243	101,383	14,340	2,745,004	2,222,548
Gasoline	129,356	18,479	.....	.....	2,558,325	3,799,186
Kerosene	80,055	10,436	.....	.....	1,249,046	1,176,647
Other finished oil	.....	.....	.....	.....	3,529	12,086
Other unfinished oil	.....	.....	.....	.....	186,069	34,547
Coastwise-domestic—						
Crude oil	194,160	27,737	220,317	31,474	5,402,078	5,097,639
Fuel oil	190,362	27,195	50,660	7,237	5,536,711	6,254,252
Diesel and gas oil	5,431	773	1,519	217	429,991	804,505
Gasoline	565,870	80,839	419,225	59,889	7,664,143	7,891,282
Kerosene	.....	.....	2,925	418	97,173	119,586
Naphtha distillates	.....	.....	.....	.....	.....	27,651

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Fuel oil	.....	.....	.....	.....	110,650	.....
Diesel and gas oil	.....	.....	.....	.....	448,112	280,531
Gasoline	.....	.....	73,179	10,454	218,985	702,977
Kerosene	.....	.....	.....	.....	276,412	482,430
Lubricants	.....	.....	.....	.....	26,500	24,366
Foreign exports—						
Crude oil	.....	.....	75,601	10,800	1,080,673	1,224,818
Fuel oil	78,230	11,176	78,928	11,275	1,249,871	466,775
Diesel and gas oil	.....	.....	61,411	8,773	879,681	639,898
Gasoline	.....	.....	147,172	21,025	2,026,215	2,759,094
Kerosene	.....	.....	120,555	17,222	630,644	578,878
Lubricants	.....	.....	18,836	2,691	108,580	76,905
Other finished oil	.....	.....	.....	.....	2,760	3,745
Other unfinished oil	.....	.....	.....	.....	5,750	26,278
Coastwise-domestic—						
Fuel oil	67,572	9,653	267,047	38,150	3,442,329	2,077,838
Diesel and gas oil	.....	.....	5,783	826	105,912	179,250
Gasoline	103,672	14,810	379,997	54,285	2,934,212	2,629,228
Kerosene	.....	.....	7,341	1,049	44,805	82,555

Lost Hills-Belridge

The Union Oil Co. has what appears to be the makings of an exceptionally good well in the North Belridge Field of Kern County. The well is No. 18 Belridge, which is rotating ahead at 8,380 feet in an unusually good looking oil sand which is showing oil and considerable gas pressure. This well is being drilled into the Eocene, which was proved up as highly productive a few years ago by the Belridge Oil Co. No. 18 Belridge did not show a thing in the Temblor due to its location around the edge of the structure, and was accordingly carried down into the wagonwheel zone of Eocene age. The Associated Oil Co. has suspended operations on No. 1 Williamson in the Lost Hills Field following the failure to develop commercial production after plugging back to 6,850 feet and perforating the casing above this point where some showings of doubtful value were logged during the course of work.

The Amerada Petroleum Corp. is building a rig for a test to be drilled at Blackwell's corner and spud should be made some time during the forthcoming week. This test will be located on the Beer lease in Section 17-26-19 and is in an area that justifies a thorough test. The Standard Oil Co. has resumed drilling operations in its test in the McKittrick Field following a redrilling job which was necessary in order to straighten the hole. This well showed a sufficient volume of natural gas to justify the expectation of opening up a commercial gas field but the company decided to drill ahead in order to determine whether a second gas zone might also be found productive. The Standard has some acreage southeast of the present test and it is not at all improbable that a well will be drilled on this property in the near future.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Clayton, G. L., No. 1 Cerritos, Los Angeles Co.	31- 3-12	6,701	fishing D/P
Woodward Oil Co., No. 1 Athens, Los Angeles Co.	12- 3-14	5,593	sd. sh. drilling
Houser, G. W., No. 1 Athens, Los Angeles Co.	18- 3-13	4,037	cleaning out
Quinn, J. B., No. 1 Dominguez, Los Angeles Co.	3- 4-13	4,587	plug 4,290
Nudson, T. T., No. 1 Inglewood, Los Angeles Co.	17- 2-14	3,020	pl. 2,370; idle
East Santa Fe Oil Co., No. 1 Inglewood, Los Angeles Co.	16- 2-14	mtl.	building rig
Scientia Oil Co., No. 1 Inglewood, Los Angeles Co.	7- 2-14	3,806	plug 3,375
Pacific Western, No. 1 Inglewood Deep, Los Angeles Co.	8- 2-14	5,057	wet
Plymouth Oil Co., No. 1 Inglewood, Los Angeles Co.	8- 2-14	5,602	pl. 4,450; idle
Wilshire Oil Co., No. 2 Potrero Deep, Los Angeles Co.	27- 2-14	7,962	coring
Fourl, C. W., No. 1 Del Rey, Los Angeles Co.	27- 2-15	mtl.	building rig
Community Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	7,447	cleaning out
Texas Co., No. 1 Montebello Deep, Los Angeles Co.	6- 2-11	7,025	cemented
Standard Oil Co., No. 1 Montebello Deep, Los Angeles Co.	6- 2-11	7,350	gr. sd. drilling
St. Helens, No. 1 Montebello Deep, Los Angeles Co.	6- 2-11	6,140	sd. sh. drilling
Fullerton Oil Co., No. 1 Montebello Deep, Los Angeles Co.	6- 2-11	6,470	hd. sh. drilling
Pressell & Tull, No. 1 Puente Hills, Los Angeles Co.	30- 2-9	3,281	br. sh. drilling
Barstow Oil Co., No. 2 Saugus, Los Angeles Co.	35- 5-16	1,098	gr. sd. drilling
International Dev. Co., No. 1 Saugus, Los Angeles Co.	34- 5-16	2,873	hd. sd. drilling
Black Eagle Oil Co., No. 1 Huntington, Orange Co.	tideland	3,985	suspended
Explorers Drlg. Co., No. 1 Fairview, Orange Co.	9- 6-10	945	suspended
Nuoil Co., No. 1 Newport, Orange Co.	29- 6-10	6,485	fishing D/P
B. & B. Oil Co., No. 1 Newport, Orange Co.	19- 6-10	rig	suspended
Platt & Collins, No. 1 Costa Mesa, Orange Co.	14- 6-10	2,298	hd. sh. drilling
Mid-Rich Drlg. Co., No. 1 Atwood, Orange Co.	26- 3-9	3,100	br. sh. drilling
Union Oil Co., No. 1 Coyote, Orange Co.	23- 3-10	6,000	sd. sh. drilling
Bridger, J., No. 1 Coyote, Orange Co.	15- 3-10	5,202	sd. sh. drilling
Severns Drlg. Co., No. 2 West Coyote, Orange Co.	24- 3-11	5,474	cleaning out
Rubens, Si, No. 2 East Coyote, Orange Co.	19- 3-9	rig	rigging up
Great American Pet., No. 1 Chino, San Bernardino Co.	18- 2-8	2,642	suspended
Great American Pet., No. 2 Chino, San Bernardino Co.	18- 2-8	3,146	sd. sh. drilling
Great American Pet., No. 3 Chino, San Bernardino Co.	7- 2-8	rig	rigging up
Tehama Pet., No. 1 Santa Ana Canyon, S. Bernardino Co.	33- 2-8	2,294	br. sh. drilling
San Diego Pet. Co., No. 1 Chula Vista, San Diego Co.	32-18-2	4,795	gr. sh. drilling
San Diego Drlg., No. 1 Camp Kearny, San Diego Co.	29-15-3	....	location

Kettleman Hills

A check of development work under way in the Kettleman North Dome Field indicates the probability that 18 new wells should be finished before the close of the current year and if operators adhere to present schedules the potential daily production of this field will be substantially in excess of 500,000 bbls. before the new year rolls around. During the early part of the past week, the Standard successfully finished well No. 74-19 J flowing 11,049 bbls. of exceptionally clean 36.4 gravity oil and 12,965,000 feet of natural gas per day from 8,323 feet. The company is starting another well on this property and it should be under way within the next fortnight as the rig is now in course of construction. The Superior Oil Co. did not make an open flow test on No. 8 Huffman, a recent completion, and consequently it is only rated as a small well doing 2,670 bbls. of clean 36.5 gravity oil and 17,900,000 feet of natural gas per day from 8,990 feet after the hole had been plugged back from 9,231 feet because of mechanical trouble. The Middle Dome Corp. picked up the top of the Temblor in its test in the Middle Dome of Kettleman Hills at 7,619 feet and the hole is being reamed preparatory to landing and cementing a string of 8 5/9-inch casing.

Mountain View

Two new wells were chalked up in the Mountain View Field of Kern County during the past week and both of them registered commercial production. The A. T. Jergins Trust started off the week by finishing No. 1 Bloemer-Wright, flowing 1,194 bbls. of relatively clean 26.7 gravity oil per day from 5,735 feet after completing the job with a 6⅝-inch perforated liner. The Mohawk Petroleum wound up the week by completing No. 1 Vineland flowing 1,340 bbls. of clean 24.9 gravity oil per day from 5,159 feet. The Union Oil Co.'s No. 2 Kernco has taken on a rather good looking aspect with the result that the field department expects to complete a normal producer. The Texas Co. is rigging up No. 1 Mateo Smith, an offset to the Union's No. 2 Kernco, and drilling operations should get under way within the next day or two. Subnormal rainfall in the San Joaquin Valley during the past two years has tended to slow up drilling activities during the past year as the water table has dropped and operators are forced to drill deeper for boiler water. The Mountain View Field does not look as attractive as it did a month or two ago, and while a limited amount of new work is being started from time to time, this drilling is being centered in well established areas where production is practically assured.

Mount Poso

The Union Oil Co. chalked up a nice well in the Mount Poso Field of Kern County during the early part of the current week when No. 15 S. & M. was brought in pumping 751 bbls. of very clean 16.9 gravity oil per day from 1,735 feet. This well was finished with a 6⅝-

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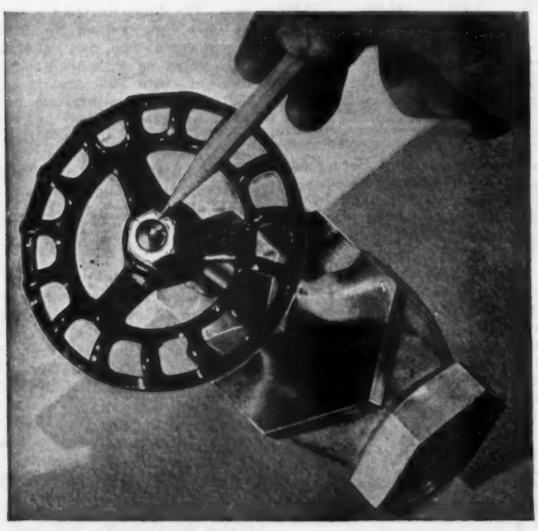

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inch liner, including 51 feet of perforated and 1,710 feet of 3-inch tubing. The Shell has just finished No. 4 Vedder-Ball in this field at 1,975 feet and it is being rigged up to pump with every indication that it will be tanking oil within the next 48 hours. The Union and Shell each have a number of new rigs erected in this field and preparations are being made to start additional drilling in the immediate future.

Drilling operations in the Round Mountain Field have practically ceased although locations have recently been staked for two new wells. The Midway Peak Oil Co. has not yet picked up the pay in its No. 1 in Section 3-32-22 in the Midway-Sunset Field but the company still has a good chance as the hole is rather shallow. This well was started to determine the possibility of developing commercial production above the 2,000-foot level and looked rather promising as the crew bailed about 300 bbls. of oil out of the hole while drilling through the strata that outcrops to the east. The Standard Oil Co. is drilling three new wells in this field at the present time and is scheduled to start rig construction for No. 79-21 B, a new well to be drilled in Section 21-31-23. The Honolulu boom, which followed completion of an exceptionally good well last year by the Honolulu Oil Corp., failed to hold up and consequently this company and the Standard are feeling their way along in an effort to determine whether the oil sand found justifies further development. In the Fruitvale Field of Kern County, the Western Gulf has material on ground for a new well to be drilled on the Parker property in Section 27-29-27.

Inglewood

The Pacific Western Oil Co.'s No. 17 Rubel in the Inglewood Field of Los Angeles Basin came in wet several days ago and will require some corrective work as tests indicate that water is entering the hole in an intermediate point about in the middle of the oil zone. This is not at all surprising in as much as a shale body with some gray sand was logged at this depth. The failure of this well to show substantial production on the first step is not at all disappointing as the sand has plenty of kick and will be productive after the water problem has been overcome. It is the consensus of opinion that either of the two zones would have shown production if tested out separately instead of trying to produce from the entire thickness. At any rate No. 17 Rubel, which was killed after the preliminary test in order to locate water, appears to have proven up the existence of one and possibly two productive horizons.

The Shell successfully recompleted No. 3 Kent-Garth in the Long Beach Field after plugging back the hole from 5,100 feet to 4,349 feet as this well was returned to production pumping 240 bbls. of 25.7 gravity oil per day. The Shell is working on two new wells in this field and they should be given production tests sometime within the next 10 days. There is still a considerable amount of reconditioning work under way in this field at the present time but new drilling has shown a substantial decline during the past 60 days. The Standard added a new well to its list of producers in the West Coyote Field this week by finishing No. 119 Murphy-Coyote, but it failed to result in a natural flow. This new well, finished at 5,595 feet and completed with a 4½-inch liner including 122 feet of perforated, was brought in on a compressor

(Continued on Page 78)

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
General Pet., No. 9 Capitan, Santa Barbara Co.	32- 5-30	3,168	Sespe—drlg. cemen.ed
Shell Oil Co., No. 3 Capitan, Santa Barbara Co.	32- 5-30	1,898	sd. sh. drilling
Petroleum Sec., No. 1 Los Alamos, Santa Barbara Co.	6- 7-32	1,730	sd. sh. drilling
Royalty Ser. Corp., No. 1 Los Alamos, Santa Barbara Co.	35- 9-32	512	sd. sh. drilling
Fairview Oil Co., No. 1 Purisima, Santa Barbara Co.	18- 7-34	2,981	fishing D/P
Signal O. & G. Co., No. 1 Elwood, Santa Barbara Co.	tideland	100	sd. drilling
Barnsdall-Rio Grande, No. 8 Doty Elwood, S. Barbara Co.	15- 4-29	5,735	O. S. reaming
East Elwood Pet. Co., No. 1 Elwood, Santa Barbara Co.	14- 4-29	3,272	hd. sh. drilling
Shell Oil Co., No. 1 Goleta, Santa Barbara Co.	20- 4-28	2,876	hd. sh. drilling
Standard Oil Co., No. 2 Goleta, Santa Barbara Co.	17- 4-28	4,850	redrilling
Leingang, G., No. 1 Cuyama, Santa Barbara Co.	32-10-25	....	material
Cuyama Valley Oil Co., No. 1 Cuyama, Santa Barbara Co.	12-10-27	4,196	hd. sd. drilling
Woodrow Pet., No. 1 Rincon, Ventura Co.	4- 3-24	7,612	redrlg. 5,594
Continental, No. 3 San Miguelito, Ventura Co.	23- 3-24	6,625	pl. 6,375; redr.
Texas Co., No. 128 South Mountain, Ventura Co.	4- 3-19	2,278	cleaning out
Oil Ridge Oil Co., No. 1 Fillmore, Ventura Co.	1- 4-19	1,068	sd. sh. drilling
Bolsa Chica Oil Co., No. 1 Piru, Ventura Co.	4- 4-18	2,595	O.H.; 250 B/D
Piru Oil Co., No. 1 Piru, Ventura Co.	14- 4-18	1,002	sd. sh. drilling
Pac. Dev. Co., No. 1 Santa Susana, Ventura Co.	12- 2-18	rig	rigging up
Williamson & Donaher, No. 1 Simi, Ventura Co.	36- 2-18	1,016	will deepen
American Drlg. Co., No. 1 Simi, Ventura Co.	6- 2-17	794	sd. sh. drilling
Macrate, A. N., No. 1 Ojai, Ventura Co.	27- 4-23	5,537	suspended
Rancho Oil, Inc., No. 1 Ojai, Ventura Co.	18- 4-23	106	sd. drilling
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24- 3-23	6,006	sd. sh. drilling
Kirk, W. A., No. 1 Sulphur Mountain, Ventura Co.	21- 4-22	2,220	cleaning out
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	22- 4-21	2,270	br. sh. drilling
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22- 3-20	7,370	fishing D/P
Standard Oil Co., No. 1 McKittrick, Kern Co.	15-30-22	3,775	hd. sh. drilling
Casa Mira Oil Co., No. 1 Beiridge, Kern Co.	29-28-20	5,480	hd. sd. drilling
General Pet., No. 1 South Beiridge, Kern Co.	30-28-21	11,377	temp. susp.
Union Oil Co., No. 18 North Beiridge, Kern Co.	36-27-20	3,284	hd. sd. drilling
Standard Oil Co., No. 1 North Beiridge, Kern Co.	36-27-20	4,525	redrlg. 3,416
Associated Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	7,858	pl. 6,850; idle
Amerada Pet., No. 1 Blockwells Corner, Kern Co.	17-26-19	mtl.	bldg. rig.
Home Corp., No. 1 McFarland, Kern Co.	16-26-27	....	location
Ohio Oil Co., No. 1 McVan, Kern Co.	22-27-27	....	location
Gilmore Oil Co., No. 1 Mountain View, Kern Co.	24-30-28	5,857	suspended
Union Oil Co., No. 3 Mountain View, Kern Co.	15-30-28	5,485	sd. sh. drilling
Texas Co., No. 1 Mountain View, Kern Co.	14-30-28	rig	rigging up
General Pet., No. 1 Mountain View, Kern Co.	14-30-28	5,110	sd. sh. drilling
Barnsdall, No. 2 Mountain View, Kern Co.	32-30-28	4,958	sd. sh. drilling
Hogan Pet., No. 5 Mountain View, Kern Co.	32-30-29	6,078	sd. sh. drilling
Standard Oil Co., No. 1 Mountain View, Kern Co.	19-30-29	5,630	cleaning out
Hoyt, Otis, Mountain View, Kern Co.	19-30-29	5,375	O. S. drilling
Shell Oil Co., No. 1 Mountain View, Kern Co.	30-30-29	4,632	sd. sh. drilling
Glico, Inc., No. 2 Edison, Kern Co.	23-30-29	mtl.	bldg. rig.
Monterey Exploration, No. 2 Edison, Kern Co.	22-30-29	2,971	hd. sd. drilling
Jergins Trust, No. 1 Edison, Kern Co.	22-30-29	3,515	suspended
Jergins Trust, No. 2 Edison, Kern Co.	14-30-29	1,190	pump 100 B/D
Shell Oil Co., No. 1 Edison, Kern Co.	16-30-29	2,838	sd. sh. drilling
Shell Oil Co., No. 2 Edison, Kern Co.	15-30-29	2,250	sd. sh. drilling
Barnsdall, No. 1 Edison, Kern Co.	26-30-29	2,477	schist; cmtd.
Centralia Oil Co., No. 1 Edison, Kern Co.	26-30-29	2,324	will test
Ohio Oil Co., No. 1 Edison, Kern Co.	36-30-29	1,402	sd. sh. drilling
Commanche Oil Co., No. 1 Commanche, Kern Co.	15-32-29	4,326	suspended
Tejon Ridge Oil Co., No. 1 Commanche, Kern Co. S	23-32-29	619	suspended
Russ Oil Synd., No. 1 Kingsburg, Fresno Co.	28-12-11	4,004	cleaning out
Bergman, Harry, No. 1 Kingsburg, Fresno Co.	12-12-11	6,138	suspended
Union Oil Co., No. 1 Lillis-Kettleman, Fresno Co.	24-21-16	10,944	redrilling
Western Gulf, No. 3 S. P., Fresno Co.	11-17-15	rig	rigging up
Farrel Pet., Well No. 1 San Luis Obispo Co.	18-31-12	1,091	sd. sh. drilling
Willett Oil Co., No. 2 Cholame, San Luis Obispo Co.	10-25-15	2,202	sd. sh. drilling
Commonwealth Consd. Gas, No. 1 Tulare Lake, Kings Co.	21-22-20	1,950	suspended
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings Co.	21-22-20	rig	portable outfit
Armadillo Oil Co., No. 1 Tulare Lake, Kings Co.	32-22-20	1,760	suspended
Kettleman Pac. Oil Co., No. 1 Tulare Lake, Kings Co.	11-23-16	805	sd. sh. drilling
Weller, Carl, No. 1 Tulare Lake, Kings Co.	11-23-16	1,420	suspended
Mastadon Oil Co., No. 1 Tulare Lake, Kings Co.	27-24-22	rig	suspended
Trico Oil & Gas Co., No. 1 Atwell, Kings Co.	33-24-22	3,712	suspended
Trico Oil & Gas Co., No. 2 Atwell, Kings Co.	3-25-22	rig	rigging up
Buttes Oilfields Co., No. 2 Marysville, Sutter Co.	35-16-1	4,350	Andesite
Milham Exploration Co., No. 2 Tracy, San Joaquin Co.	24- 3-4	mtl.	building rig
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	6,330	sd. sh. drilling
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24-3	862	sd. sh. drilling

Several Completions in Southeastern New Mex.; Four in Montana; Gas Well in Southern Utah

By TOLBERT R. INGRAM
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DENVER, Colo., Aug. 27.—Southeastern New Mexico reported a larger number of completions and near completions than usual. Ohio Oil Co.'s No. 2 State-McDonald, midway between the Eunice and Cooper Pools, had a 50,000,000-foot gas blowout. Continental Oil Co.'s No. 20-C-1 State, in the Eunice Pool, was completed for 1,320 bbls. initial. In the Cooper area Phillips Petroleum Co.'s No. 1 Woolworth, on a drill stem test made 140 bbls. of oil an hour, and its No. 2 Woolworth showed for 60 bbls. an hour and its No. 4 Woolworth for 60 bbls. of oil an hour and 19,000,000 feet of gas. Continental Oil Co.'s No. 13-A-1 Sholes, in the Jal Pool, made 70 bbls. an hour initial. Gypsy Oil Co. has two near completions in the Hobbs Pool, one flowing 1,800 bbls. a day, estimated, and the other gauging 2,850 bbls. before treating. Eddy County had a 26-bbl. producer in Getty Oil Co.'s wildcat northwest of the Getty Pool, and an 11-bbl. well in the Compton Pool.

In Colorado Stanolind Oil & Gas Co.'s No. 33-8D Parkinson, on the Iles Dome, was recompleted for 70 bbls. an hour. Texas Co.'s No. 1 Sampson, at King Mountain, struck granite and was abandoned.

In Wyoming a 20-bbl. shale well was completed in the Osage Field.

Montana reported four completions and two new locations in the Cut Bank Field, one of the completions coming in flowing 500 bbls. the first day. This was A. B. Cobb's No. 3 Walberger, a record well for the field. Continental Oil Co. released a location for a Madison test with rotary in Stillwater County.

Ramsey Petroleum Corp.'s wildcat in southern Utah struck a 4,000,000-foot flow of wet gas.

NEW MEXICO

Lea County

Proration schedules for Lea County Pools for the last half of August show no material changes. The potential for the Hobbs Pool as of August 16 established a new high, however, of 2,005,055 bbls. daily. This was an increase of 25,855 bbls. compared with August 1. Allowable outlet for the field was placed at 36,157 bbls. daily, compared with 36,404 bbls. in the first half. The number of units in production was increased by 1 to 194.

Jal's allowable is 3,250 bbls. from 29 units, of which 11 units are limited to a maximum of 187 bbls. daily each, the remainder being permitted to produce at capacity.

The Cooper-Lynn allowable is 471 bbls. daily from six units, and the Eunice Pool was given an allowable of 3,237 bbls. from 18 units with a maximum from 16 units of 187 bbls. each. The other pools showed about the same allowables as for the first half.

Eunice Area

An important development in the Eunice area took place in Ohio Oil Co.'s No. 2 State-McDonald, C NW SW Section 14-22-36, which had a gas blowout at 3,440 feet, the flow being estimated at 50,000,000 feet a day. It is coring at 3,452 feet. This well is a mile east of the company's No. 1 State-McDonald, SW NW SW Section 15-22-36, completed late in 1930 at 3,878 feet, after plugging back from 3,904 feet, for 24,000,000 feet of gas and 10 bbls. of oil. No. 2 State-McDonald is nearly 6 miles southeast of the oil development, 3 miles south of Gypsy Oil Co.'s No. 1 State, a gas well, and several miles north of the Cooper area.

One completion was reported in the Eunice Pool in Continental Oil Co.'s No. 20-C-1 State, C NW NW Section 20-21-36, an offset, drilled to 3,950 feet with an initial production of 1,320 bbls. of oil and 1,500,000 feet of gas the first 24 hours after being treated with 1,000 gallons of acid. The 2½-inch tubing was run to 3,949 feet.

Continental has a near completion in No. 20-C-2 State, C SW NW Section 20-21-36, standing at 3,950 feet total depth after being treated. Same companf's No. 8-B-1 Meyers, C SE NW Section 8-21-36, is waiting after cementing 13⅜-inch at 336 feet with 150 sacks, and its No. 17-A-4 Meyers, C NE SW Section 17-21-36, is rigging up rotary.

Gypsy Oil Co.'s No. 1 Bell-Ramsey, C NW SW Section 9-21-36, is drilling at 3,203 feet, and Repollo Oil Co.'s No. 1 State, NE NW NE Section 19-21-36, is drilling at 3,200 feet in anhydrite in new hole. Total depth of old hole for last-named was 3,850 feet. Tide Water Oil Co.'s No. 2 State-Foster, C SE NE Section 8-21-36, had an estimated flow of 3,000,000 feet of gas at 2,879 feet, total depth, and cemented 9⅝-inch at 2,856 feet with 600 sacks. Texas Co.'s No. 1 Rector, C NE SE Section 30-21-36, is waiting at 3,250 feet, total depth, after cementing 9⅝-inch at 3,243 feet with 500 sacks. Tide Water Oil Co.'s No. 3 Coleman, C NE NE Section 17-21-36, is shut down for tools after completing derrick, and Shell-Devonian's No. 1 State, C SW NE Section 20-21-36, is rigging up rotary.

Cooper Area

Drilling in the Cooper area centers mostly around General Crude Oil Co.'s two oil wells and several of the tests are at critical stages. Phillips Petroleum Co. has four near completions. Its No. 1 Woolworth, NW cor. SW Section 23-24-36, an east offset to General Crude Oil Co.'s No. 1 Meyers, is bottomed at 3,504 feet and is waiting after cementing 7-inch at 3,445 feet with 300 sacks. A drill stem test at 3,434-53 feet showed 3,500,000 feet of gas. Another at 3,453-98 feet gauged 1.5 bbls. of oil an hour. It was tested at 3,444-98 feet and gauged 140 bbls. of oil an hour and 6,000,000 feet of gas.

Phillips' No. 2 Woolworth, NW NE SW Section 23-24-36, is waiting at 3,507 feet, total depth, after cementing 7-inch at 3,462 feet with 300 sacks. It was given a drill stem test at 3,460-3,507 feet and on a 30-minute gauge showed for 3,000,000 feet of gas and 60 bbls. of oil an hour. Same company's No. 3 Woolworth, SW cor. NW Section 23-24-36, is drilling at 3,097 feet in lime. Phillips' No. 4 Woolworth, C SW SW Section 23-24-36, is bottomed at 3,505 feet in lime and was given a drill stem test at 3,410-3,505 feet and showed for 19,000,000 feet of gas and 60 bbls. of oil an hour. Top of pay was at 3,483 feet. It will ream the hole and treat with acid.

Humble Oil & Refining Co.'s No. 1 Cooper, C NW NE Section 23-24-36, almost half a mile northeast of General Crude Oil Co.'s No. 1 Cushing, is drilling at 3,543 feet with a slight show of oil and gas. Test at 3,223-90 feet showed 1,500,000 feet of gas. Same company's No. 1 Coats, C NW NE Section 10-24-36, is moving in tools. Stanolind Oil & Gas Co.'s No. 1 Meyers, SE cor. NE Section 22-24-36, is drilling at 3,488 feet in lime, and Texas Co.'s No. 1 Ogg, C SW NE Section 35-24-36, is shut down for water at 1,073 feet. General Crude Oil Co.'s No. 2 Meyers, C SE SE Section 22-24-36, is waiting at 3,520 feet in lime after cementing 7-inch at 3,473 feet with 320 sacks. It was given a drill stem test at 3,518-20 feet and on a 30-minute gauge showed for 2,500,000 feet of gas and 50 bbls. of oil an hour.

Jal Area

Continental Oil Co.'s No. 13-A-1 Sholes, C SW SE Section 13-25-36, was completed at 3,310 feet in lime for an initial production of 70 bbls. of oil an hour and 1,200,000 feet of gas. The 2½-inch tubing was run to 3,300 feet.

One new location was reported, Empire Gas & Fuel Co.'s No. 2-B Linden, NE cor. SW Section 13-25-36, which has cellar and pits completed.

Repollo Oil Co.'s No. 2-A Stephens, NW cor. NE Section 13-25-36, is shut down at 3,279 feet, in lime, to run 6⅝-inch.

Hobbs Area

Gypsy Oil Co. has a near completion in No. 3 Graham, SW cor. NE Section 24-18-37, on the extreme northwest side of the Hobbs development, a diagonal offset to Noble Brothers' No. 2 Shell-State. At 4,219 feet, total depth, it is flowing through the tubing and estimated at 1,800 bbls. a day before treating. The 7-inch was cemented at 3,994 feet with 250 sacks. Same company's No. 3 East Grimes, NW cor. NE Section 33-18-38, is standing at 4,216 feet, total depth, after being treated with 2,000 gallons of acid. Before treatment it had an initial production of 2,850 bbls. in 24 hours. Gypsy's No. 9 West Grimes, NW cor. SW Section 32-18-38, spudded August 13, set 13⅜-inch at 212 feet with 200 sacks and less than a week later was drilling at 2,512 feet. Stanolind Oil & Gas Co.'s No. 8 Turner, C NW NW Section 34-18-38, is waiting at 3,980 feet in lime after cementing 7-inch at 3,976 feet with 150 sacks.

Shell Petroleum Corp.'s No. 1-D State, SE cor. NW Section 24-18-37, a west offset to Gypsy's No. 3 Graham, is drilling at 1,325 feet in red rock, and its No. 4 Grimes, SE cor. SW Section 28-18-38, is drilling at 3,810 feet in anhydrite. Same company's No. 1 Sanger, SW cor. Section 27-18-38, is rigging up rotary.

Eddy County

Getty Oil Co. has completed a small producer in wildcat territory 4 miles northwest of the Getty Pool in its No. 2 Cook & Ironsides, C SW NW Section 8-20-29. It was drilled to 1,598 feet and was plugged back to 1,160 feet and completed for 26 bbls. a day, after being shot at 1,105-20 feet with 60 quarts. Apparently it opens a new pool as the limit of the Getty Pool on the northwest was found in a dry hole and the oil in the new discovery tests 27.1 degrees gravity A.P.I., which compares with 21 gravity for the Getty Pool crude. It is 3 miles west and a little south of No. 1 Cook & Ironsides, on the north flank of the Getty Pool, which was abandoned as a dry hole. Getty controls a large block surrounding the producer.

R. D. Compton's No. 2 Pitcher, NW cor. NE Section 8-18-27, Compton Pool, Artesia area, was completed at 1,223 feet and is swabbing an average of 11 bbls. a day from the pay at 1,120-23 feet.

Etz, Hammond & Keyes' No. 1 State, C SE SE Section 16-17-28, Artesia area, is shut down for boiler repairs at 885 feet, and Tignor, Etz and Keyes' No. 1-A Keyes, C SE SW Section 10-17-28, is drilling at 1,100 feet in anhydrite.

Pecos Valley Drilling Co.'s No. 1 McIntyre, NW NW Section 27-23-25, Dark Canon district, is shut down for engine at 3,033 feet, and Guess & McIntosh's No. 1 State, NW cor. Section 8-26-28, Red Bluff district, is shut down for engine repairs at 1,460 feet in anhydrite. Last named had a show of gas at 1,303 feet. Skelly Oil Co.'s No. 1 Lea, C NW NW Section 23-17-31, Maljamar area, is drilling at 2,313 feet in lime and had a show of oil and gas at 2,276 feet. Leonard, Inc., No. 1 Robinson, C NE SW Section 25-16-31, is drilling at 4,050 feet in gray sand and flowing 1 bbl. of oil an hour. A. & M. Petroleum Co.'s No. 1 State, C S SW NE (cor.) Section 15-21-27, Carlsbad district, lost the hole at 230 feet and skidded rig 10 feet to the west.

Santa Fe County

Holmberg interests have taken over C. C. Owens and others' No. 1 Cantwell, NW cor. Section 5-10n-9e, near Stanley, and are resuming at 555 feet. Elmer Fisher's No. 1 Hill, Section 6-10-7e, Barton district, is drilling at 2,000 feet in sandy lime.

San Miguel County

Cabra Springs Oil & Gas Co.'s No. 1 Cabra Springs Ranch, SW NE NE Section 22-12-22, Pino Mesa district, is drilling at 3,632 feet in brown sand.

San Juan County

Nick Spatter's No. 1, C NE SW Section 32-31-11w, Aztec district, is underreaming 8¼-inch to bottom at 830 feet to shut off water. Aztec Oil Producers, Inc.'s No. 2, C SE SE Section 28-30-11w, is resuming at 1,490 feet. Finley & Johansen's No. 1, NE NW Section 22-29-11, is drilling at 200 feet.

Valencia County

Western Natural Resources Corp., Inc.'s No. 2 San Clemente grant, SW cor. NE Section 5-6n-1e, De Chaves district, is rigging rotary to resume at 5,155 feet. M. Harris has contract to deepen 800 to 1,000 feet to test the Dakota.

Land Sale

The state land commissioner offered for sale at Santa Fe on August 10 oil and gas leases on 23 tracts. One tract was withdrawn from the sale and there were no bids on five tracts. The 17 tracts sold, comprising 20,991 acres, brought bonuses and rentals aggregating $41,955. Sales included the following:

Tract 1, 1,999 acres in Townships 3, 5, 6, 7 and 10, Ranges 33, 34, 35 and 37; William D. Morris, Fort Worth, $506.99.

Tract 2, 1,000 acres in Township 16, Ranges 28, 29 and 30; Ann Down, El Paso, $106.11.

Tract 3, 1,000 acres in 16s, 30, 31 and 32e; C. F. Jensen, Portland, Ore., $126.

Tract 6, 1,920 acres in 14s-34e; Shell Petroleum Corp., $576.

Tract 7, 2,249 acres in 14s-34e; Shell Petroleum Corp., $674.

Tract 11, 4,200 acres in 14 and 15s-37 and 38e; Harry Leonard, Roswell, $13,356.

Tract 12, 4,777 acres in 14 and 15s-37 and 38e; Harry Leonard, $15,192.

Tract 14, 160 acres in Section 18-21-35;

Humble Oil & Refining Co., $508.

Tract 15, 640 acres in Section 35-23-35; Humble Oil & Refining Co., $2,156.

Tract 16, 120 acres in Section 25-25-37; J. O. Seth, Santa Fe, $522.

Tract 19, 240 acres in Sections 19 and 20-21-35, Humble.

Tract 20, 80 acres in Section 36-22-37; J. O. Seth, $308.

Tract 21, 441 acres in Section 36-22-73; Humble Oil & Refining Co., $1,488.

Tract 22, 160 acres in Section 28-17-34; Texas Co., $280.

Tract 23, 840 acres in 17 and 18s-34 and 35e; Continental Oil Co., $4,850.

COLORADO

Congressman Samuel B. Pettengill, of Indiana, acting as a subcommittee of the house committee investigating the petroluem industry in connection with the hearings on the Thomas-Disney bill, was in Denver the past week and attended an informal conference with oil men and chairmen of various committees. E. B. Swanson, of the Petroleum Administrative Board, was present. Others present included W. H. Ferguson, regional chairman; Thomas A. Dines, chairman of the refining committees; John T. Barnett, A. R. Wilson, of Texas Co.; W. B. Emery, of Ohio Oil Co.; H. C. Brettschneider, Arthur Johnson, and C. B. Richardson.

Routt County

Texas Co.'s No. 1 Sampson, SE NE SE Section 2-1s-85, a test of the King Mountain structure, proved a disappointment and will be abandoned at 1,331 feet, total depth, in granite. Top of the granite was at 1,085 feet. Above that formation was 190 feet of white quartzite. It started in the Pennsylvanian and did not encounter any oil or gas shows.

Texas Co.'s No. 8 Quaintance-Hocking, NE SW NE Section 18-6n-86, Tow Creek, is moving in cable tools.

Moffat County

Stanolind Oil & Gas Co.'s No. 33-SD Parkinson, SE SW SE Section 22-4n-92, lles Dome, an old well drilled deeper to test the lower Sundance, was completed at 3,502 feet, still in sand, and flowed an average of 70 bbls. an hour, or at the rate of 1,680 bbls. daily. The 6⅝-inch was set at 3,294 feet.

Mountain Fuel Supply Co.'s No. 4-B Wilson, C NE NW Section 23-12-100, Hiawatha Dome, is coring at 3,451 feet in shale, and Texas Co.'s No. 1 Van Schaick, SW cor. Section 19-12-100, is drilling at 2,000 feet and carrying the 8⅝-inch.

Grand County

Colorado Oil Refining Co.'s No. 1 Linke, NE SW SW Section 13-1n-77, Granby structure, which had a show for 250,000 feet of gas a day in the first sand of the Hygiene series at 1,058-88 feet, followed by a thin saturated oil sand, 8¼-inch at 1,097 feet, but failed to shut off the gas. The pipe was lowered to bottom at 1,105 feet to be sure that the gas was not coming from behind the pipe. After experimenting it was definitely ascertained the gas was coming from the bottom of the hole. A control head is being moved in and drilling has been resumed with the next objective sand expected within 200 feet. This is a wildcat that is beginning to look very promising.

Jackson County

Continental Oil Co.'s No. 3 Hoye, NW cor. NE Section 34-9n-78, South McCallum, is drilling with rotary at 830 feet.

Park County

South Park Oil Co.'s No. 1 State, SE cor. SW Section 16-11s-75, Hartsel district, is spudding at 50 feet, and South Park Oil & Gas Co.'s No. 1 Esche, SE cor. NW Section 5-9s-76, Como district, is shut down at 2,465 feet. Last named will skid rig and start new hole.

Las Animas County

Mountain States Oil Corp.'s No. 1 Nikola, C NE SE Section 10-34-62, Garcia district, is preparing to run 8¼-inch at 1,740 feet, total depth. It is planned to carry 8¼-inch through the Dakota and make the hole a Pennsylvanian test. It encountered the Timpas at a little below 1,600 feet and had a show of a few gallons of oil.

Adams County

Riddle Petroleum Co.'s No. 1 Baxter, C SW Section 2-3s-66, Derby district, has completed 122-foot re-enforced steel derrick and is setting fuel oil tanks.

Prowers County

Trojan Oil & Gas Co.'s No. 1 Lotus Oil, NW NE NE Section 15-23-46, Lamar district, set 6⅝-inch at 3,624 feet and is bailing out water to test.

Archuleta County

Oil City Petroleum Co.'s No. 2 Garnett, NE cor. Lot 3, SW Section 25-33n-2e, is drilling at 230 feet. Rig was skidded from No. 1 Garnett, which lost the hole at 130 feet.

Montezuma County

Coon & Teague's (McElmo Oil Co.) No. 1 West, NE NW NW Section 31-36-17, McElmo district, is drilling at 1,735 feet and underreaming the 6⅝-inch.

WYOMING

Albany County

Ohio Oil Co.'s No. 1 Chappell, C SE NW Section 28-21-76, East Rock Creek, is drilling at 4,608 feet in the lower red beds.

Big Horn County

Taylor Oil Co.'s No. 1 Hoskins, SE SE Section 25-56-97, Byron district, is drilling at 3,300 feet after changing over to rotary at 2,855 feet. Objective is the Madison lime. Ohio Oil Co.'s No. 2 Byron-Union, C SE NE Section 22-56-97, is drilling at 3,656 feet. Peter Evanoff and others' No. 1 Griffin, Lot 60, Section 4-55-97, Garland district, has completed derrick.

Carbon County

Earl W. Reeder, Inc.'s No. 1 Union Pacific, C SW SW Section 19-20-83, Overland Dome, is drilling at 5,309 feet in sandy shale. There is a report the company will drill another well at another location with rotary. Ohio Oil Co.'s No. 1 Morris, C NW SE Section 6-20-77, Diamond Dome, is shut down at 2,641 feet for water. Sinclair-Wyoming Oil Co.'s No. 4 Wertz, SW cor. SE Section 7-26-89, Wertz Dome, is cleaning out at 3,440 feet to run cement again.

Fremont County

Monongahela Oil Co.'s No. 1 Wisda, NE SE SE Section 13-28-93, Crook's Gap, is shut down at 2,790 feet installing heavier power. Same company's No. 1 Jones, NW cor. Section 7-28-92, Spring Creek, an old well plugged several years ago, was re-entered to clean out to gas sand at 1,045 feet. Boulders and iron were encountered at around 100 feet. Rig was skidded 25 feet and is spudding to go to the gas horizon. Mid-American Oil Co.'s No. 1 Government, NE SW Section 4-28-92, Sheep Creek, is drilling at 1,462 feet and had a show of oil at 1,452-56 feet. The Embar is expected at around 1,500 feet.

Hot Springs County

California Exploration Co.'s No. 1 Government, NE SE NE Section 12-44-97, Waugh Dome, is drilling at 2,360 feet and carrying the 10-inch.

Lincoln County

H. M. Eller and others' No. 2 Government, NE cor. SW Section 32-19-116, Cumberland district, had a show of oil at 380 feet. No. 1 was completed a few months ago for 25 bbls. a day at a shallow depth. It is planned to erect a skimming plant as soon as sufficient production is developed. This operation hereafter will be carried as the Ellison Oil Co.

Park County

Dry Creek Oil Co.'s No. 1, NE SW Section 9-50-100, drilling for light oil in a fault block in South Oregon Basin, which last week reported 8,000,000 feet of gas in the first Frontier at 840 feet, set the 12½-inch at 935 feet and is drilling at 1,000 feet. Garland Oil Co.'s No. 1 Cotner, NE SE NW Section 10-56-98, Garland Dome, is rigged and ready to spud. Stanolind Oil & Gas Co.'s No. 6 Rosenberg, NW cor. Section 25-58-98, Frannie Dome, is drilling at 1,594 feet.

Natrona County

Sinclair-Wyoming Oil Co.'s No. 11-A, SE SE Section 30-40-78, Salt Creek, an old well drilling deeper from 2,490 feet, is making new hole at 2,600 feet.

Niobrara County

Bowser-Satterfield Syndicate's No. 1 West Virginia, NE cor. NW Section 7-35-62, Sage Creek, is underreaming at 1,761 feet, total depth.

Sheridan County

Sheridan Syndicate's No. 1 Allison, SW SE Section 15-55-85, Beaver Creek, is drilling at 1,950 feet.

Sweetwater County

Wyoming-California Petroleum Co.'s No. 2 Union Pacific, SE NW SW Section 11-16-104, South Baxter Basin, is drilling at 1,765 feet.

Weston County

One completion was reported in the shale area in the Osage Field in Osage Oil Trust's No. 37, NE SW NE Section 18-46-63, for 20 bbls. daily on the pump from shale at 400 to 500 feet.

Le Faivre Oil Syndicate's No. 1 Martin, NW SE Section 29-45-68, Buck Creek, shut down at 2,099 feet since last fall, has resumed and is underreaming 12½-inch at 2,000 feet. Conway Oil Corp.'s No. 1 Government, NW Section 19-41-61, Dewey district, is drilling at 200 feet.

UTAH

The Ramsey Petroleum Corp.'s No. 1 Weightman, SW NE SW Section 18-26-7e, on the Last Chance structure, in Emery County, southern Utah, reported last week as having encountered a good show of wet gas in broken lime at 2,530-34 feet, topped a sand in the Moenkopi formation (lower Triassic) at 2,690 feet and encountered more gas between that depth and the bottom of the hole at 2,697 feet. The gas, estimated at 4,000,000 feet a day, was found in 5 feet of sand in the test's first objective. The gas will be killed and 8¼-inch underreamed from 2,123 feet to bottom to continue drilling to the other objectives of which three remain to be tested. The well is being drilled under a contract with the American Oil Corp.

Mountain Fuel Supply Co.'s No. 2 Murphy, S NE NE (cor.) Section 21-3n-24, Clay Basin, Daggett County, is drilling at 2,425 feet in shale. Leonora Mining & Milling Co.'s No. 1, C Section 14-9n-8w, Box Elder County, at the north end of the Great Salt Lake, is fighting cave at 2,280 feet. Escalante Exploration Co.'s No. 2 Escalante, NW cor. NE Section 19-43-15, Bloomington district, Washington County, is changing from rotary to cable tools at 4,044 feet.

MONTANA

Glacier County

Four completions and two new locations were reported in the Cut Bank Field. One completion proved a surprise by coming in as a flowing well and making a new record for the field. This was A. B. Cobb's No. 3 Walberger, NE SW SE Section 35-35-6w, which at a total depth of 2,794 feet, made 500 bbls. natural first 24 hours and 335 bbls. the second 24 hours from the Cut Bank sand topped at 2,787 feet. The well is close to the line between the oil and gas areas and this accounts for the large production. It encountered considerable wet gas in the upper part of the sand.

Dakota-Montana Oil Co.'s No. 3 Gilham, NE NE Section 3-34-6w, which has been standing at 2,947 feet for several weeks with little more than a show of oil in the upper sand, has been worked over and made into a producer. It is pumping 35 to 40 bbls. daily. The lower sand at 2,884-2,920 feet was dry.

Indian Oil Co.'s No. 1 fee, C SE SE

Section 4-34-6w, an outside well on the west, and a west offset to Jeffries' No. 1 Clark, proved to be a small well and hardly commercial. It is drilling at 3,080 feet after going through the Cut Bank sand at 2,970-75 feet, which swabbed only 5 to 7 bbls. in 24-hour periods.

Texas Co.'s No. 2 Morrison M-358, E SW NE Section 22-35-6w, an outside well on the northwestern side, swabbed 193 bbls. first 24 hours and is running tubing.

The new locations are Montana Power Gas Co.'s No. 1 Sheuren, C SW SW Section 21-33-5w, which is building rig, and Texas Co.'s No. 1 Consolidated-State 527-30, C SE NE Section 36-34-6w. First named is in the southern part of the field a mile south of the company's No. 1 Neil, and Texas Co.'s location is a mile north of the town of Cut Bank, a mile from the nearest producer, and the first well to be drilled in the section. It is on unitized acreage.

Texas Co.'s No. 1 Morrison M-358, NW NE Section 22-35-6w, reported a completion last week, swabbed 244 bbls. first 24 hours from sand at 2,862-95 feet. It flowed for a while when first drilled in. Alberta-Pacific Consolidated Oil Co.'s No. 4 Keisel, SW cor. NW Section 11-34-6w, topped the Colorado at 510 feet and is drilling at 1,475 feet. Lon Crumley's No. 1 Jones, C NW SE Section 31-34-5w, is bottomed at 220 feet and straightening hole at 190 feet. Dakota-Montana Oil Co.'s No. 1 Winkler, C NW NW Section 26-35-6w, is on top of the sand at 2,840 feet. Fulton-Nadeau's No. 2 Haggerty, C NW NW Section 15-34-6w, is drilling at 1,500 feet. Grant Oil Co.'s No. 2 Yunck, C SW SW Section 14-34-6w, is drilling at 1,850 feet. Indian Oil Co.'s No. 2 Winkler, W SW SW Section 23-35-6w, is drilling at 900 feet. Lawler & Hoer's No. 1 Harland, C SW SW Section 5-33-5w, is drilling at 2,315 feet.

Montana Headlight Oil Co.'s No. 2-A Williams, C NE NE Section 11-34-6w, is fighting cave at 2,720 feet. Montana Power Gas Co.'s No. 1 De Zort unit, NE SE SW Section 23-35-5w, is spudding at 155 feet, and its No. 1 Hawkins, C SW Section 17-33-5w, is bottomed at 2,765 feet after recovering tools and is running the 8¼-inch to stop caving. Same company's No. 1 Pioneer Lumber Co. Unit No. 1, SE cor. Section 21-35-5w, is drilling at 1,630 feet, and its No. 1 Van Ormer, C SE SW Section 8-33-5w, is drilling at 1,650 feet. Nyhagen-Bell's No. 3 Anderson, NE NW SW Section 26-35-6w, is drilling at 2,400 feet. The P. M. K. Petroleum Co.'s No. 1 Matson, C NW NW Section 14-34-6w, is drilling in at 2,900 feet after setting the 6⅝-inch at 2,890 feet. Santa Rita Oil & Gas Co.'s No. 4 Tribal, C N half SW Section 15-35-6w, is drilling at 215 feet, and its No. 4 Whetstone, SE NE Section 22-35-6w, is drilling at 2,590 feet.

R. C. Tarrant's No. 2 Getty, NW cor. SE Section 2-34-6w, is drilling at 2,700 feet, and his No. 1 State, C SE SE Section 36-34-6w, is drilling at 485 feet. Texas Co.'s No. 1 Hessler, C NE NW Section 20-33-5w, set the 10¾-inch on bottom at 632 feet, and its No. 1 Kennerly, E NW NE Section 22-34-6w, is drilling at 2,582 feet. Same company's No. 2 Schlag, C SE SW Section 26-35-6w, is waiting on spudder at 2,808 feet.

Stillwater County

An important test is to be drilled by Continental Oil Co. on the Nye-Dean anticline in Stillwater County in the southern part of the state for which location has been released in its No. 1 John L. Orr, SW NW SE Section 18-5s-17e. The company has acquired the Purdy and Jones holdings consisting of 30,000 acres in Township 5s, Ranges 16 and 17e. The test, which will be drilled with rotary equipment, will have the Madison limestone as its objective. The Purdy and Jones block, held intact since 1920, has had two tests drilled on it. Matlock & Co. drilled to the Colorado shale at 1,800 feet in the NE cor. Section 15-5-16, and Empire State Oil Co. lost its hole at 2,750 feet after having a heavy show of oil in the top of the Lakota at 2,675 feet, followed by water. Last named was in NW NW SE Section 32-4s-16e. The surface formation on the crest of the dome is Colorado shale and the structure has 500 feet of closure.

Big Horn County

The first completion in the Soap Creek Field in 12 years is reported in California Independent Oil Co.'s No. 3-B Tribal, SW NW NE Section 34-6s-32, flowing 350 bbls. of fluid a day from the Amsden at 1,658 feet, total depth, of which 20 per cent is water. It is making a 10-day test. The oil is heavy black crude of asphaltum base and the company proposes to process it for road-building purposes.

Cascade County

Ralph Chamberlain and others' No. 1 Heldman, SE Section 6-19-2w, Crown Butte district, is shut down at 764 (cor.) feet, waiting for analysis of samples to determine formation being drilled.

Carbon County

Ohio Oil Co.'s No. 14 Maddox, C NW NW Section 10-7s-21, Dry Creek, is drilling at 5,013 feet.

Phillips County

Montana Gas Utilities Co.'s No. 526 Federal Land Bank, C NW SW Section 23-31-34, Bowdoin gas field, is drilling at 699 feet and had a show of gas at 675-90 feet, and its No. 503 State, C NW NW Section 16-31-34, is cleaning out at 1,015 feet. Town of Saco's No. 1, SE cor. Section 7-31-34, is resuming at 200 feet.

Liberty County

John Wilde's No. 2 Mahoney, W SW SE Section 23-37-4e, Whitlash district, is drilling at 327 feet.

Teton County

Ned Cheadle and others' No. 1 Balsinger, NE SE NW Section 20-27-5w, West Pondera, is drilling at 2,395 feet with 1,300 feet of salt water in the hole.

Toole County

Alberta Development Co. is reported to have a good well in its No. 5 Buckley, W SW SW Section 1-37-4w, which swabbed 100 bbls. in 24 hours from the Basco sand at 2,520 feet, total depth. It is being put on the pump. The upper sand showed for 3,000,000 feet of gas.

In the Kevin-Sunburst Field, E. R. McKee's No. 7 fee, NW SW Section 19-35-1w, is drilling at 400 feet, and A. C. Crumley's No. 4 Fryberger, SW SE SW Section 24-35-2w, is drilling at 450 feet.

Drilling Being Resumed in the Skiff Field After Several Years of Inactivity

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Aug. 25.—After several years of inactivity, drilling operation were resumed last week in the Skiff Field, southern Alberta, when Devenish Petroleums' No. 5, LSD 4, Section 27-5-14w4, was spudded. The Skiff Field was opened in 1927. A Calgary group headed by O. G. Devenish blanketed approximately 70,000 acres on a structure in the southern plains area near Skiff, and organized Devenish Petroleums, Ltd., to handle the development. Devenish's No. 1, LSD 5, Section 27-5-14w4, got oil shows at five different horizons, the main production being a heavy crude from the Ellis sand at 3,080 feet. Drilling was discontinued in the top of the Madison at 3,180 feet.

Devenish's No. 2 in LSD 11, Section 11-5-14w4, finished a dry hole at 3,171 feet, encountering only small oil and gas shows. No. 3, drilled close to No. 1 in LSD 4, Section 27-5-14w4, got a fair commercial production in the Ellis sand at 3,054 feet. No. 4, in LSD 13, Section 29-5-14w4, in another part of the field, finished dry. Later Dauntless Oils, Ltd., controlled by the same interests, drilled on another part of the structure in LSD 9, Section 36-6-15w4. It got some small shows including one in the Sunburst sand at 3,020 feet, but failed to get the Ellis, passing into the Madison lime at 3,288 feet.

The oil in Nos. 1 and 3 was a good grade of asphaltic crude, but not adapted to the needs of existing refineries. Some shipments were made for fuel oil purposes, but the field has been practically inactive since the Dauntless test was finished in 1930. Devenish's No. 1 offsets No. 3 producer and is the first of a series of tests designed to systematically extend the producing area. The Dauntless outfit was skidded for the new test, crude oil from No. 3 will be used for fueling the boilers, and casing has been pulled from No. 1 discovery for the new well. If sufficient production can be developed a refinery will be erected in the field specially equipped to handle the product. No. 1 is about 4 miles southwest of the village of Skiff and Nos. 3 and 5 still farther south.

Cardston Test

West of Cardston, in the southern plains area, Cardston Gas & Development Co.'s No. 1, LSD 6, Section 5-3-25w4, is drilling. Franco Oils, Ltd., is handling the contract. The investigations of Dr. F. F. Heintze, chief geologist for the latter company, supervising the operations, show drilling on the Cardston anticline starts in the Willow Creek sands, passing through the St. Mary's sands into the Bearpaw shale, where gas is looked for. Underlying is the Belly River formation followed by the Pakowki shale, another potential gas horizon. The underlying formations are the Milk River sand, Benton shale, Blairmore sand (another potential gas horizon) and the Kootenay and Fernie formations, with the Madison limestone, in which both oil and gas may be encountered, the ultimate possible producing horizon.

A number of tests have been drilled at various times in the Cardston district, but none in the immediate vicinity of the present operations. A test drilled by the Boston-Alberta Oil Co. in 1917 in LSD 16, Section 5-1-25w4, encountered numerous oil and gas shows.

Wainwright Production

Systematic reconditioning of old producing wells in the Wainwright Field, east central Alberta, has resulted in a steady increase in the yield of heavy crude. Gold Standard Oils, Ltd., backed by Toronto capital started refining operations at Wainwright in April, and by early August had run over 5,000 bbls. of Wainwright crude. At the same time old wells throughout the field have been reconditioned, and during August production will exceed over 2,000 bbls., with an anticipated increase to 2,800 bbls. in September. It is planned to produce throughout the winter, and production in sight from the old wells is estimated between 24,000 and 33,600 bbls. a year. The Gold Standard plant at present has a maximum capacity of 110,000 bbls. a year, and the company is planning, after reconditioning old wells, to undertake systematic new drilling to enable the plant to run entirely on Wainwright crude. At present considerable crude is imported for the plant.

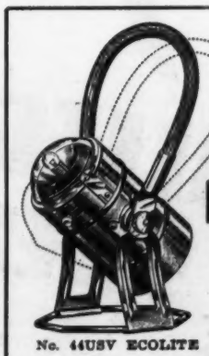
Turner Valley

In Section 8-18-2w5, South Turner Valley, Publix Oil & Gas Co.'s No. 1, LSD 8, on the east side of the section, is at 4,720 feet and has a good show of light crude, which rose 2,000 feet in the hole. The producing sand is the Dalhousie. Drilling will be continued to the Madison lime.

In the southeast corner, same section, Spooner Oils' No. 5 Anaconda, LSD 1, offsetting Highwood-Sarcee's No. 1 producer to the north, is in hard cap rock below 5,275 feet. To the west, Carleton Royalties' No. 1, LSD 2, is at 2,363 feet. It got the cardium marker at 2,350 feet and is logging satisfactorily. Farther west Renfrew Royalties' No. 1 Morris & Goodfellow, LSD 3, has spudded. As soon as surface pipe is set for the initial water shutoff, three cable tool crews will be placed on the job. The acreage was held originally by Stuart Goodfellow and Harry G. Morris of Vancouver.

To the northwest, on the west side of the Section, Richfield Royalties' No. 1, LSD 5, is around 4,000 feet, waiting for 10-inch casing. Farther east, British Dominion Oil & Development Corp.'s No. 4, LSD 6, is in Lower Benton around 2,700 feet and carrying casing.

Pacalta Oils' No. 1, LSD 7, is fishing



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in the lime at 5,120 feet. It has a small wet gas production. Immediately north, Mar Jon Oil Co.'s No. 2, LSD 10, is being shot. It drilled 952 feet into the lime, finishing with initial production of 20 bbls. which under high back pressure increased to 55 bbls. a day. It was at one time thought drilling water might have clogged the porous lime.

In the northwest corner of Section 28-18-2w5, Turner Valley Royalties' No. 1 Bell & Brown, N. LSD 13, is shut down a 3,055 feet. Farther east, Century Royalties' No. 1, LSD 14, is 116 feet in the lime below 5,951 feet. In the northeast corner of the section, Director Royalties' No. 1, LSD 16, is at 4,405 feet.

Far South Tests

In Section 21-18-2w5, Myers & Wright's No. 2 Pacalta, LSD 14, is below 750 feet. Farther south, Union-Freehold Oil Corp.'s No. 1, LSD 8, same section, is below 4,385 feet and logging satisfactorily. In the south end, Highwood Royalties' No. 1 Oliver, LSD 3, is below 1,260 feet. On the west side, North West Royalties' No. 1 Prairie, LSD 5, is resuming at 1,400 feet.

In the older areas of South Turner Valley, Nolan-Hungerford Royalties' No. 1 Rand, LSD 5, Section 34-18-2w5, cemented surface pipe at 500 feet. It is planned to carry 10¾-inch casing to the lime. Mercury Oils' No. 6, LSD 12, Section 4-19-2w5, is at 2,190 feet with 13-inch casing run to 2,163 feet.

Central Turner Valley

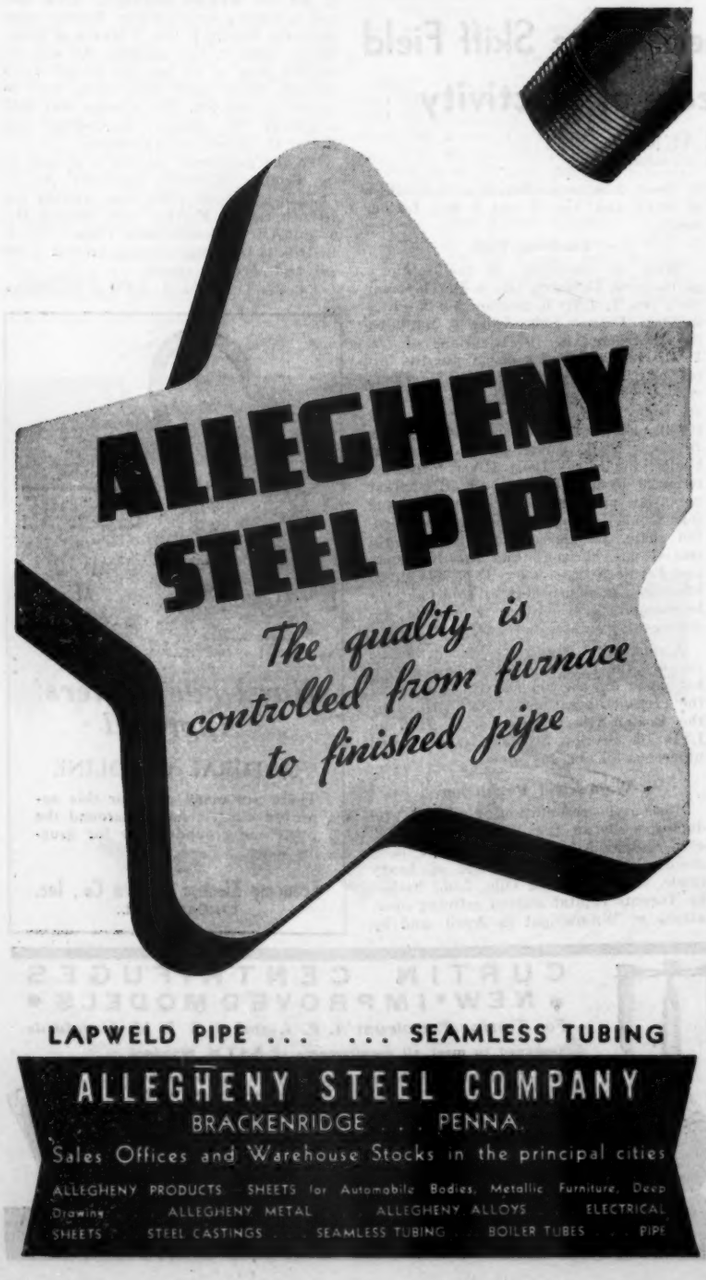
In Central Turner Valley, New McDougall-Segur Oil Co.'s No. 7, Section 12-20-3w5, is in the Benton around 3,000 feet and getting close to the Blairmore, where light crude production is looked for. Royalite Oil Co.'s No. 4, LSD 12, Section 7-20-2w5, is shut down. Some time ago cleaning out resulted in a partial return of the gas flow, but efforts to bring the once-famous gusher back into production have proven unsuccessful.

In the south Turner Valley, negotiations are in progress for completion of Lavingston Syndicate's No. 1, LSD 5, Section 34-18-2w5.

Drilling in the Foothills

In the foothill area west of Olds, Hunter Valley Oil Co.'s No. 1 McLaren, LSD 12, Section 13-31-10w5, is in the Blairmore formation below 3,350 feet.

On the Highwood-Sinclair structure south of Turner Valley, Canadian Royalties' No. 1 Banner, LSD 6, Section 34-17-3w5, has sidetracked bit lost at 596 feet, and is running 16-inch casing to 625 feet to shut off surface water.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Farther south on the Pekisko Hills structure, Pekisko Co.'s No. 1, LSD 6, Section 6-17-2w5, is at 2,025 feet. Additional gas has been encountered in the lime, increasing the aggregate flow to 4,000,000 feet a day.

Watson Structure

On the Watson structure west of Lundbreck, Raven Oils' No. 1, Section 20-9-2w5, being drilled by Union Drilling Co. of Calgary, is below 500 feet. Mar Jon Oil Co.'s No. 3 Prairie, LSD 3, Section 4-10-2w5, has derrick up and is installing machinery. It will spud about the end of August.

In the Oil City Field, Waterton Lakes Park, Oil City Royalties' No. 1 Patrick, Section 30-1-30w4, is below 1,810 feet.

Boundary Bay Test

In the Boundary Bay area of the Fraser Valley, British Columbia, Natural Gas Development Co.'s No. 1 has spudded in close to a deep test drilled some years ago by Boundary Bay Oil Co. which got good shows of gas but went deeper in an unsuccessful effort to develop oil production. The Natural Gas Development Co. will endeavor to develop the gas sand indicate in the earlier test. No. 1 is starting with a 20-inch hole. Cable tools are being used, the work being in charge of Everett Borders of Montana. E. O. F. Ames is president of the company, which is planning to sell any gas production developed in Vancouver.

Midwest Petroleum Corp.

Shareholders of Midwest Petroleum Corp., Ltd., held a meeting at Calgary when Alex Hannah, J. H. McLeod and Len Phillips were chosen directors, succeeding a provisional board named some time ago. Midwest Petroleum Corp. is a reorganization of the old Mid West Oil Co. which held 80 acres in the older sections of the Turner Valley Field. It has two unfinished tests, No. 1 in LSD 8, Section 31-19-2w5, drilled to 3,730 feet; and No. 2 in LSD 3, Section 24-20-3w5, standing at a reputed depth of 3,345 feet. Neither was carried to the lime. The company became inactive a number of years ago, later passing under the control ot the old Southern Alberta Oil Co. and subsequently of the Dalhousie Oil Co., an Imperial subsidiary.

No drilling operations have been carried on for several years, though a new location for No. 3 was made. The earlier tests are both understood to have got encouraging shows of light crude in the horizons above the lime.

Saskatchewan Gas Test

On the Dirt Hills structure in southern Saskatchewan, Pine River Petroleums' No. 1, LSD 8, Section 23-12-24w2, is below 3,760 feet and fishing.

Ontario Drilling

In the Dover Field, Kent County, Ontario, F. H. Stover & Son's No. 1, Jubenville farm, Lot 13, front concession, Dover Township, is in the Trenton limestone below 2,855 feet, with some gas. It is 1,500 feet east of the nearest producer..

In the Tilbury Field, Kent County, Laddwill Oil Co.'s No. 2, Jarvis farm, Lot 18, Middle Road South, Tilbury East Township, is running casing.

In Moore Township, Lambton County, American Engineering Co.'s No. 3, I. C. Kerr farm, Lot 21, Concession 1, has landed drive pipe at 190 feet.

In Norfolk County, E. P. Rowe's No. 4, Mrs. Elwin Stilwell farm near Eden, is reported finishing with estimated gas flow of 500,000 feet a day. Rowe's No. 5, Charles Coyle farm, is reported good for about 600,000 feet a day.

Eastern Fields

(Continued from Page 52)

rig standing on the Amos Brissey farm. In Grant district, Dunn Mar Oil & Gas Co. has a location on the P. D. Starr farm. Cabin Run Oil & Gas Co. is fishing at 1,570 feet in the test on the J. B. Markey farm. Swingle Brothers are down 725 feet on the Crissel Vincent farm.

In Wayne County, on the waters of White Creek in Union district, G. L. Meabon and others have started drilling on the G. C. Chadwick farm, about 1,800 feet northeast of the Chartier Oil Co.'s test on the G. W. Ronk farm. In Butler district, Edward Oil & Gas Co. has reached 1,250 feet on the Albert Ronk farm.

In Wetzel County G. N. Yoho and others have a rig standing on the George A. Smith farm and drilling at 2,345 feet on the J. W. Monroe farm, both in Proctor district. In Center district, Blank Oil & Gas Co. has a rig standing on the Rosy Garret farm and Chambers Oil & Gas Co. one on the Harrison Melott farm, a second test.

In Wirt County, Jesse Manon and others have a rig standing on the C. Neely heirs farm in Burning Springs district. In this district Glenn Roberts and others have a location on the M. T. McConaughey farm. R. C. Wagner and others are down 250 feet on the J. W. Bunner farm. In Clay district, on Big Island Creek, C. S. Benedict and others have moved a machine for No. 4 on the Thomas Lewis heirs farm.

In Wood County South Penn Oil Co. has built a rig for No. 6 on the John Alleman farm in Union district. It is a very small producer from the gas sand and is to be drilled to the Berea sand. In Walker district, Pleasant Hill Oil & Gas Co. has a location on the Elmer Marshall farm. Roberts and Pepper are down 400 feet on the John Roberts farm.

SOUTHWEST PENNSYLVANIA

There were two completions in Southwest Pennsylvania during the week, both by Carnegie Natural Gas Co. In Fayette County this company completed a test on the George N. Boyd farm in Jefferson Township at a total depth of 2,830 feet through the Sweet Richard sand. There was no gas below the Gordon sand which extended from 2,225-2,342 feet and it gauged about 55,000 feet a day. In Perry Township, Greene County, this company completed drilling deeper No. 1 on the E. D. Patterson farm in the Bayard sand at 3,231 feet. The top of the Bayard was at 3,221 feet with oil showing at 3,227-31 feet. It will make about a 5-bbl. well.

In Amwell Township, Washington County, the test of Carnegie Natural Gas Co. on the N. B. Redd farm is drilling in the Fifth sand and the hole has filled up about 250 feet with fluid. The second pay has not been reached but it does not have the appearance of a large well. The test by this company on the A. M. Cole farm has reached 800 feet. The Pittsburgh coal was at 757 feet. On the Farabee lease, the tools have reached 2,300 feet.

In East Findley Township, Washington County, the Natural Gas Co. of West Virginia is drilling two wells, both tests. The test on the J. N. Ealy farm is drilling at 720 feet and on the Charles Ealy farm 1,210 feet with the Pittsburgh coal at 765 feet. Union Gasoline & Oil Corp. is down 1,740 feet in No. 4 on the Sarah Carter farm.

In South Franklin Township, Carnegie Natural Gas Co. reached the second pay in No. 1 on the C. T. Dodds farm which was drilled down to the Fifth sand. About 45 bbls. a day is being swabbed from the well. Duquesne Gas Co. is drilling deeper No. 1 on the John Day farm and has reached 2,940 feet and will reach the Fifth sand within a few days. George Bungard & Co. are drilling at 433 feet in No. 6 on the John G. Clark farm. The Pittsburgh coal was at 414 feet. Furman Nuss & Co. are drilling No. 2 on the Jason Buchanan farm and passed the Big Dunkard sand. There was a showing of oil at 988 feet.

In Greene County, Equitable Gas Co. is drilling deeper No. 1 on the C. F. Stoneking farm in Greene Township and has reached 2,970 feet. In Franklin Township, Carnegie Natural Gas Co. is getting ready to drill deeper No. 2 on the Emma Lapping farm. In Center Township, J. B. Orndoff is cementing a cave on the W. H. Scott farm. Greene County Gas Co. has reached 1,745 feet in drilling deeper No. 1 on the Stephen Crayne farm.

TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the question is considered to be confidential.

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Volume Decrease in Natural Gas Due to Extracted Gasoline

We are attempting to arrrange a uniform method for determining gas volume shrinkage due to extraction of gasoline in natural gasoline plants and want to know if you can furnish a curve based on G. P. M. or refer us to a published one? Can you also tell us where we can locate a table setting forth the amount of gas used by different type burners at different pressures?—R. C. T.

Natural gas, like any other mixture of hydrocarbons, is not a uniform substance but varies in composition as found in the different fields. Its composition changes with conditions existing in the well. There are other variables, but these are enough to suggest that there can be no set method for determining extraction losses that will be correct for gases of different origin. Of course, when enough data has been collected in a field to serve for identification purposes, it will usually be satisfactory to select some arbitrary scheme which will give data that will be near enough to the facts to enable one to arrive at a figure which will be at least approximately true.

Martin Shepherd in his article Determining Gasoline Content of Gas, The Oil and Gas Journal, June 27, 1929, page 48, discusses some of the conditions that influence the removal of hydrocarbons from natural gas. He makes this observation: From these data it is possible to determine the percentages of condensate present in the gas at the selected pressure and temperature, also to convert the measured volume to gallons of condensate per 1,000 or 1,000,000 cubic feet. A similar operation is necessary in order to determine exactly how much gas will be formed from a given gasoline.

The hydrocarbons may be converted into vapor on the basis shown in the table.

VOLUME OF VAPOR FROM HYDROCARBONS, TEMPERATURE 60° F.

One gallon of	Equivalent cubic feet
Propane	35.48
Butane	32.56
Pentane	27.60
Hexane	24.25
Heptane	21.65

When making approximate estimates it is the practice to use 32 to 35 cubic feet as the vapor equivalent of 1 gallon of natural gasoline, the higher figure being more often used. As has been indicated above an exact equivalent cannot be found without making an analysis.

Some authorities suggest that the heating value of natural gas is reduced 2 per cent by the extraction of gasoline and that this figure could be used for general purposes.

W. P. Dykema, Bureau of Mines Bulletin 176 (1919), states:

"The loss in gas volume owing to the extraction of condensable fractions is represented, first, by the liquid products recovered and counted as net gasoline production, and, second, by the part of the gas that is carried from the towers as dissolved gas but can not be condensed after passing through the distilling process, or can not be held as liquid in the condensed still-vapors during subsequent handling and shipping. Of the first portion each gallon of product represents between 30 and 35 cubic feet of gas, or each gallon of condensate from 1,000 cubic feet reduces the original volume of the gas 3.5 per cent.

"The second portion is more difficult to estimate, its volume depending on temperatures, pressures, and methods used at different plants as well as on the vapor tensions of the condensable fractions contained in the gas treated. In most plants this second portion is not to be computed as loss, as the vapors from still coils, accumulators, and weathering tanks are collected and used as fuel for power for the plant or are pumped back to the gas lines."

Brief references on the above subject may also be found in "Natural Gas," by Lichty, page 361, also, in Westcott's Handbook on Casinghead Gas," third edition, page 429.

I do not know of any mechanical scheme, such as a curve, that could be reliable for determining volume loss based on gasoline or other hydrocarbons extracted. One might be made for a particular plant, but it would be reliable only so long as all conditions remained fixed.

I do not know of any table which indicates gas consumption under various conditions.

First Solvent Extraction Plant for Making Lub Oils

We are interested to know where the first solvent extraction type plant for the manufacture of lubricating oil was located and what solvent was used?—F. W. M.

The first solvent extraction process for the treatment of a petroleum oil appears to have been that invented by L. Edeleanu for the purification of kerosene, (Brit. Pat. 11,140, May 22, 1908), using liquid sulphur dioxide as the solvent and this method has since been adapted to the treatment of lubricating oils. The first plant for the treatment of lubricating stocks was built at the Avon, Calif., refinery of the Associated Oil Co. in 1927. The attention of the lubricating oil refiners was attracted to the improved quality of the oil made by the sulphur dioxide process in this refnery and served to stimulate a search for other liquids which would do satisfactory work.

The investigations following the application of liquid sulphhur dioxide to lubricating oils have resulted in numerous new methods. The sulphur dioxide method has also been improved and modified so today it is looked upon as one of the important solvent extraction methods for the manufacture of high grade lubricating oils.

Revivification of Spent Doctor Solution by Blowing With Air

When spent doctor solution is blown with air to reactivate it, what are the chemical changes involved and how much heat is released and available for heating the solution? A list of references will be appreciated. —F. V. A.

The discarded solution from the light oil treating operation is of complex composition, containing lead sulphide, sodium hydroxide, sodium sulphate and thiosulphate, as the predominating constituents. The first operation involved in the recovery process is to remove any oil that may be present. This is done by a combination of skimming and settling, occasionally by preliminary heating, before going to the oxidation units. This preliminary heating should not go above 150° F., the chief purpose of this operation being the removal of the last traces of light oil.

The chemical reactions take place in the blowing tanks. These tanks are equipped with open steam coils and perforated coils for the introduction of compressed air. Here the solution is held at a temperature just below the boiling point with just enough air passing into the tank to keep the mixture in active motion. The operation is complete when the suspended matter disappears and a clear solution is obtained. The solution, usually slightly yellow to brown in color, is drawn off to a blending tank where sodium hydroxide is added to bring it to the required strength.

As formed in the average refinery the discarded solution, as sent to the recovery plant, is of such a complex composition that it is impossible to select a fixed condition for recovery. It is not usual to consider the heat of chemical reaction. The authorities suggest that while there are probably extended chemical changes taking place within the mixture, the essential reactions are quite simple. The first change is to convert the lead sulphide, PbS, to lead sulphate, $PbSO_4$.

$$PbS + 2O_2 \text{ (from air)} = PbSO_4$$

This, in the presence of sodium hydroxide. NaOH, is charged to sodium plumbite, Na_2PbO_2, the essential doctor reagent, sodium sulphate, Na_2SO_4, and water, H_2O.

$$PbSO_4 + 4NaOH = Na_2PbO_2 + Na_2SO_4 + 2H_2O$$

Because of the uncertain composition of the raw mixture it is essential that the operation be under chemical control at every stage. Frequent adjustments are sometimes necessary if the maximum recovery of the lead is to be made.

References—Numerous articles have been written about the treatment of spent doctor solution, so the list following cannot be complete, but if consulted additional sources of information on the subject will be found.

Rowsey and Whitehurst, The Oil and Gas Journal, December 27, 1927, page 250.

Went and Diggs, Ind. Eng. Chem., 16, 1;114, 1924.

Morrell and Faragher, same, 19, 1,045, 1927.

G. W. Ayers, Jr., The Oil and Gas Journal, October 3, 1929, page 201.

A. P. Bjerregaard, same, February 25, 1925, page 96.

F. R. Staley, Nat. Pet. News, 19, 88, 1927.

D. B. Dow, same, 15, 99, 1923.

W. T. Ziegenhain, The Oil and Gas Journal, September 18, 1930, page 46.

Chemical Refining of Petroleum by Kalichevsky and Stagner, Chapter 4.

Harmful Substances Sometimes Introduced With Benzol

As the maintenance superintendent of a large fleet of trucks I am interested to know if there is any advantage in my using a gasoline benzol blend. It is possible for me to buy gasoline with or without benzol at the same price and the octane number is the same. I assume that the other specifications are equal.—H. P. M.

When choosing between two motor fuels where one is a natural product and the other has been adjusted or treated by means of some outside material, I believe the rule is a safe one to select the natural product.

The purpose of adding benzol to a gasoline is to increase the autiknock value, some gasolines not being satisfactory for use as motor fuels unless the knock rating is improved, but when so used it may be the source of objectionable impurities. A brief discussion of the source of benzol and its properties will serve to explain this.

Benzol is an aromatic substance obtained by the distillation of coal, the world supply being confined to this source. When compared with the quantity of gasoline made the production of benzol is very small, and the quantity consumed as motor fuel represents less than 1 per cent of the gasoline. Coal tar is the primary product obtained by the distillation of coal and this is distilled to obtain benzol, phenol, creosote, naphthalene, anthracene and pitch. Some gums and sulphur compounds are contained in the crude benzol produced and it is the refining of this product that must be carried to a high degree of perfection if the final product is to be practically free from these harmful and objectionable substances. For some years now the retail price of gasoline has been so low, excluding the tax, that it is not possible to use very much of a pure benzol to mix with motor gasoline. The technical grade may contain enough sulphur and gum to seriously affect any gasoline with which it may be blended, and it is not subjected to the same close inspection that gasoline receives.

PERSONAL PARAGRAPHS

FRED M. ALLISON, drilling contractor and producer of Corsicana, Tex., is on a motor trip with his wife and son to the Canadian Rockies.

* * *

JOHN G. (JACK) PEW, with the Sun Oil Company, Dallas, Tex., has returned from a business trip to the company's main offices at Philadelphia, Pa.

* * *

J. J. McAVOY, Porter Township, Midland County, Michigan, oil field worker, was called to Oklahoma City, Okla., last week by the critical illness of a brother.

* * *

COLONEL CUNNINGHAM, Pure Oil Pipe Line Company district foreman, of Mount Pleasant, Mich., was expected back this week from a motor trip to Warren, Pa.

* * *

CAL M. JONES, production foreman, the California Company, has been transferred from Monahans, Tex., to Big Spring, and F. L. HAMLIN from Big Spring to Monahans.

* * *

JAMES TAYLOR COLLINS, of the West India Oil Company, Santiago, Cuba, accompanied by MRS. COLLINS, arrived in New York City last week on the Grace liner, Santa Maria.

* * *

DR. F. F. HEINTZE, of Salt Lake City, professor of geology in the University of Utah, visited Cardston, Alberta, recently in connection with drilling operations. He was accompanied by his wife and family.

* * *

DR. F. H. LAHEE and family are vacationing at Cloudcroft, N. Mex. Doctor Lahee is chief geologist for the Sun Oil Company at Dallas, Tex. J. H. PRESSLEY, superintendent of the land department for the Sun Oil Company, Dallas, is spending a vacation with his family in Carlsbad and Cloudcroft, N. Mex.

* * *

L. M. NEUMANN, geologist for the Carter Oil Company, and family are spending their vacation in New Mexico.

* * *

J. H. EUSTIS, sales manager for W. C. NORRIS, oil well supplies, and MRS. EUSTIS, have gone to Michigan on annual vacation.

* * *

J. F. JEFFERIES, who has been district sales manager and assistant general sales manager of the Standard Oil Company in Los Angeles, Calif., during the past nine years, has been transferred to the home office of the company in San Francisco, Calif., in the capacity of assistant general sales manager.

* * *

R. W. CARRINGTON, assistant manager of the Kansas City division, and W. N. SKOURUP, district sales supervisor of the Standard Oil Company (Indiana), have returned to their headquarters in Kansas City, after calling on the trade in Tulsa and visiting I. A. SMITH, in charge of the Standard offices there.

* * *

DON DAVIS has been made sales manager of the derrick division, Emsco Derrick & Equipment Company with headquarters in Dallas, Tex. His territory includes West Texas, New Mexico, Kansas, and Oklahoma. R. R. COWAN, transferred from East Texas, will be district sales representative for the Emsco company, with field headquarters in Midland, Tex.

LIP NORVELL, representative for the Norvell-Wilder Supply Company, Fort Worth, Tex., has returned from a vacation trip on the Gulf Coast and in Chicago.

* * *

GOVERNOR RUBY LAFFOON, of Kentucky, has bestowed the title of colonel on H. C. MEYER, general manager of the Gulf Refining Company, of Pittsburgh, Pa.

* * *

L. S. FITE, former superintendent for the Russell Petroleum Corporation at Kilgore, Tex., is now superintendent for H. W. SNOWDEN with headquarters in the same town.

* * *

JERRY TRAGMIRE, who has been spending a furlough of several months at Lake Huron points, has left for Barranca-Bermeja, Colombia, where he is in charge of the garages of the Tropical Oil Company.

* * *

CHARLES W. TEATER, of Saginaw, Mich., who drilled the discovery well in the big Porter Township Pool, Midland County, suffered a fractured spine in an automobile accident near Mount Pleasant, Mich., last week.

* * *

S. S. SMITH, in charge of natural gasoline plant operations in the Mid-Continent area for the Shell Petroleum Corporation, has just returned to Tulsa from a five weeks' vacation trip through the Canadian Rockies, the Pacific states and scenic points in Nevada, Colorado, and Wyoming.

* * *

GEORGE E. DORSEY, formerly chief geologist of the Magnolia Petroleum Company at Dallas, Tex., has been transferred to New York and made chief geologist of the Socony-Vacuum Corporation. S. A. THOMPSON, formerly chief geologist of the Vacuum Oil Company, Houston, Tex., and more recently geologist for Magnolia Petroleum Company, Shreveport, La., has been transferred to Dallas and promoted to the position left vacant by Mr. Dorsey's promotion.

E. McCUNE, head of the land department for the Sun Oil Company, Dallas, Tex., has returned from a vacation at Cloudcroft, N. Mex.

* * *

J. H. LANGSTON, chief scout for the Sun Oil Company, is spending about a week in Oklahoma City and Seminole, Okla., on a vacation.

* * *

CHARLES O. FAIRBANK, of Petrolia, Ontario, head of the Fairbank oil interests, has left the C. E. Englehart Hospital after an operation for appendicitis.

* * *

H. BOYD, in the scouting department of the Magnolia Petroleum Company, Dallas, Tex., is motoring through the eastern and New England states on his vacation.

* * *

BRUCE H. HARLTON, research geologist, Amerada Petroleum Corporation, Tulsa, recently returned from his vacation trip to Los Angeles, Calif., and left for Wyoming and South Dakota on company business.

* * *

E. G. (SWEDE) RHENSTROM, World War pilot, is now flying a new plane for Pitzer and West, operators of Breckenridge, Tex., who have a well treating company which operates in Texas, Oklahoma and Kansas.

* * *

JAMES McLAUGHLIN, star Pittsburgh University football fullback, who has been keeping in training as an employe of the Pure Oil Pipe Line Company in Central Michigan this summer, left for his last year at Pittsburgh. He was accompanied by his mother.

* * *

H. J. STRUTH has resigned as technical adviser to the Petroleum Administration Board and has been appointed by the Planning and Coordination Committee as allocator for District 5-B. Mr. Struth will allocate gasoline production quotas for refineries in the Texas Gulf Coast district.

* * *

JOHN J. LOVELL, special representative for Universal Rod & Equipment Company of Tulsa, has been on a business trip through the fields in West Texas and New Mexico.

* * *

GEORGE L. (DEAK) BERRY and ROY MOONEY, members of the drilling division of the Olson Oil Company of Tulsa, have returned to the Hutchinson, Kans., district after spending several weeks near El Paso, Tex.

* * *

W. T. LEEPER, for several years retail sales manager for Crystal Oil & Refining Company, of Shreveport, La., has been made division sales manager for Continental Oil Company, with headquarters at Brownwood, Tex.

* * *

J. W. FINLEY, head of the legal department of the Empire Companies at Bartlesville, Okla., and chairman of the mineral section of the American Bar Association, has gone to Milwaukee, Wis., to attend a meeting of the committee.

* * *

PERL MORRIS, field superintendent for the Rose-Spring Drilling Company of Wichita, Kans., left last week for Vandalia, Ohio, where he is participating in the Grand American Handicap of the American Trapshooters Association. Mr. Morris is singles champion of Kansas. H. H. BLAIR, Wichita operator, also will participate in the meet. He won the doubles championship in 1931.

DO YOU REMEMBER?

From The Oil and Gas Journal Files

25 Years Ago

August 31, 1909

The Hamilton Switch, or Preston Pool in Okmulgee County, Oklahoma, is opened with a 500-bbl. well in Section 11-14-12.

The Uncle Sam Oil Co.'s refinery in West Tulsa is in operation and the company will move its Atchison and Cherryvale, Kans., refineries to Armourdale, Kans., near Kansas City.

Frank Q. Barstow, director and member of the executive committee of the Standard Oil Co. of New Jersey, died August 20, on a train while en route from Alexandria Bay to Thousand Islands, N. Y.

20 Years Ago

September 3, 1914

Internal lubrication is a new medical treatment. It is accomplished by means of a tasteless oil made from Russian crude.

The depressing situation in the Oklahoma and Kansas oil fields outside of the Cushing and Healdton areas, has caused an almost complete shutdown of the older fields in both States.

Down in Mexico, where he is well known and highly esteemed, they call Mike Spellacy "Don Miguel." Mr. Spellacy has just returned to Los Angeles, after hobnobbing with President Carranza in behalf of the American oil fraternity in Mexico.

10 Years Ago

August 28, 1924

The use of diamond drills as an aid to testing structures is increasing. The geologist finds that core drilling removes the guesswork.

Old "26 Broadway" is being demolished to make room for a larger and more modern Standard Oil headquarters.

Central western Kansas wildcatters are discouraged by the knowledge that 24 tests in the central and western Kansas counties are below 3,000 feet with nothing showing.

J. H. BROOKS, vice president of Republic Supply Company, is on his vacation.

* * *

JOHN M. McFADDEN, vice president of the Ohio Oil Company, arrived in Los Angeles, Calif., last week from Findlay, Ohio, on business.

* * *

A. P. ALLISON, geologist, Sun Oil Company, Houston, Tex., is spending his vacation visiting his former home and relatives in Nebraska.

* * *

T. J. DONOGHUE, vice president of the Texas Company, Houston, Tex., has left with MRS. DONOGHUE for a vacation trip in California.

* * *

WALTER GRAY, district manager, and HARRY CARPENTER, of the Jarecki Manufacturing Company, left Tulsa Monday for a 10-day business trip to Texas.

* * *

J. C. MEANS, JR., president, and M. C. McGEHEE, secretary, Alamo Petroleum Company, Houston, Tex., have returned from a business trip to New York City.

* * *

DON WOOLSEY, former assistant construction manager for the southern division of the Mid-Continent Petroleum Corporation, has been made construction manager to succeed the late A. L. CUMMINS.

* * *

E. H. SALRIN, vice president of Tide Water Oil Company, Houston, Tex., returned to the Mid-Continent by airplane from California, where he spent his vacation visiting H. CORNELL, at Beverly Hills.

* * *

JOHN MABEE, of the Mabee Consolidated Corporation, has returned to Tulsa from a trip which took him to Washington, D. C., the Mayo clinic at Rochester, Minn., and to Colorado. The entire trip was made by plane.

* * *

JOHN W. MERRITT, geologist and consulting engineer, who has been in Leadville and other points in Colorado in connection with gold mining operations, has returned to Tulsa to take up his work in the oil industry.

* * *

J. C. SPRAGUE (Harvard, 1928), has joined the Acheson Colloids Corporation in the New York office as assistant secretary and assistant treasurer and is concerned with the patent, trade-mark, tax and financial matters of the corporation.

* * *

FRANK O. PRIOR, president of the Stanolind Oil & Gas Company, who was recently made a member of the Oklahoma production committee, has been made vice chairman, succeeding C. C. HERNDON, vice president of Skelly Oil Company, who resigned, but retains membership on the committee.

* * *

HARRY C. SMITH, formerly of Owensboro, Ky., but now a salesman for the Oil Well Supply Company in Mount Pleasant, Mich., is suffering with a fractured knee-cap, caused by a fall on the runningboard of his car. He was taken to the University Hospital at Ann Arbor, Mich., for treatment.

* * *

J. N. McQUARRY, petroleum engineer for the Shell Petroleum Corporation, Kilgore, Tex., is spending his vacation seeing the Chicago Exposition JOE CHALMERS, petroleum engineer, formerly located in Iowa, La., and in West Texas for the Shell Petroleum Corporation, has been transferred to Kilgore.

* * *

J. E. STILLWELL, assistant to CARL A. YOUNG, secretary of the production division of the American Petroleum Institute, has returned to his duties at Dallas, Tex., after spending several weeks at Erie, Kans. He was called there by the last illness and death of his father, the late JUDGE LEANDER STILLWELL.

Left Store to Go Into Oil Business

It was 20 years ago that Joe F. Bashara, then a young merchant in Electra, Tex., went to Sour Lake on the Gulf Coast, got a five-acre lease adjoining the field and organized the Lake Graham Oil Company. Since then Mr. Bashara has been actively engaged in the oil business. In 1916 he moved from Sour Lake to Houston, which has been his headquarters since.

J. F. BASHARA

In 1916 Mr. Bashara bought a controlling interest in the Southern Petroleum Company at Humble. A year later he disposed of this. In 1919 he did pioneering at West Columbia, where he had a 7-acre lease. His rig was the second in the field. After proving up some good production, he sold the lease to the Humble Oil & Refining Company.

About that time, in 1920, the El Dorado Field in Arkansas was in the spotlight, and Mr. Bashara purchased a lease with two producing wells from Keen & Wolf. Drilling two additional wells, he sold this property at a profit. In 1923-24, he operated at Louann, Ark., drilling four producers, which he sold to the Magnolia Petroleum Company.

A year later, in 1925, the boom came on at Liberty, on the Gulf Coast, finding Mr. Bashara again in the middle of the play. On his lease, he drilled five producing wells, which property he still holds. He organized the Bashara Oil Company in 1928 at Barbers Hill, where he had a lease in the deep flank sand area. This he also holds.

In 1930 at Hull, Mr. Bashara acquired an 8-acre lease on the southwest side of the old Hull Field, and organized the D. & L. (Daisetta & Liberty) Oil Company. On this he proved up important production in the deep Jackson horizon. Mr. Bashara also has operated as a drilling contractor and has royalty holdings.

Mr. Bashara is a native of Syria, coming to this country when he was 12 years old. His family settled at Waco, Tex., where he obtained his early schooling.

ROBERT DICKSON, of the International Petroleum Company, Ltd., left New York, August 25, on the Grace liner, Santa Cecilia, for Peru.

* * *

FRANK R. CLARK, chief geologist of the Mid-Kansas Oil & Gas Company, and family, have gone to Salt Lake City, Utah, for a visit with relatives and for an outing in the mountain region.

* * *

L. V. BOGGS, vice president of the National Supply Company, has returned to the New York offices of the company from a business trip to Rumania and other points. Mr. Boggs was gone several weeks.

* * *

WALTER J. CURLEY, president of the Pennsylvania-Conley Tank Car Company, of Pittsburgh, Pa., has been made a member of the railroad transportation committee of the American Petroleum Institute.

* * *

C. S. RITCHIE, formerly district superintendent in northeastern Oklahoma of the Continental Oil Company, is now city manager for the firm at Washington, D. C. His appointment to the national capital follows a tour of service with the Conoco Travel Bureau.

* * *

H. W. DODDS, of New York, general manager of the Texas Company; R. T. HERNDON, of Los Angeles, Calif., Pacific Coast manager; R. C. CATHCART, of Los Angeles, and J. D. BARTON, of Butte, Mont., visited Alberta points recently in connection with the company's operations there.

* * *

JAMES A. MOFFETT, who was recently appointed administrator of the Federal Housing Plan, has resigned as vice president of the Standard Oil Company of California. He was elected vice president of the company early this year and maintained his headquarters at the New York offices of the company. He resigned in order to devote his entire time to government work.

ED WATTS, independent oil man, Houston, Tex., has returned from a vacation spent in California.

* * *

D. B. McDANIEL, independent oil man, Houston, Tex., has returned from an extended trip to New York.

* * *

HOWARD BENNETTE, national coordinator for the refining industry, has returned to Washington, D. C., after several days in Tulsa.

* * *

GEORGE D. LOCKE, vice president of the Barnsdall Refining Company, Chicago, was a business visitor in Tulsa during the past week.

* * *

W. EARL SEXTON, production superintendent for W. C. Norris Oil Company, and MRS. SEXTON are back at their home in Tulsa from a trip to the Chicago fair.

* * *

R. J. ST. GERMAIN, independent oil man, Houston, Tex., leaves August 31 for a month's vacation in Wisconsin. He will join his family, who already are there.

* * *

A. G. COCHRAN, of the legal department of the Marathon Oil Company, is spending his vacation in the Yellowstone National Park. He was accompanied by MRS. COCHRAN.

* * *

B. R. GRAHAM, manager of the pipe line department of the Mid-Continent Petroleum Corporation, who has been confined following a stroke several months ago, is reported improving at Duluth, Minn.

* * *

FRED H. WILCOX, formerly with the Vacuum Oil Company, and more recently with Electric Bond & Share Corporation in Pennsylvania, has joined the West Texas geological staff of the Magnolia Petroleum Company, at Midland, Tex.

* * *

HERBERT B. SMITH, vice president of Sinclair Prairie Oil Company, who was operated on July 7, is convalescing.

* * *

R. H. HUDSON, general attorney of the Phillips Petroleum Company, has been made chairman of the directors of the Bartlesville Welfare Association.

* * *

R. W. PARKHURST, of the Barber Asphalt Company, New York, was a passenger on the Bremen, of the North German-Lloyd line, when it left New York City, August 25, for European points.

* * *

E. M. REED, Shell Petroleum Corporation valuation engineer, is on a month's vacation, going first to New Orleans, La., where he will visit relatives and do some deep sea fishing. He will go from there to San Antonio, Tex., to visit his father, W. H. REED.

* * *

FRANK LECKIE, son of R. B. LECKIE, professor of gas engineering at Purdue University, Indiana, has been appointed gas engineer in the liquefied gas division of the Phillips Petroleum Company. Mr. Leckie took over his new duties August 1, his headquarters being in Detroit, Mich. Since graduating from Purdue in 1933, Mr. Leckie has been with the Autogas Corporation in Chicago as engineer in charge of research.

* * *

G. V. D. MARX, of the Standard Oil Company of California, has been appointed national chairman of the Topical Committee on Development and Production Research of the American Petroleum Institute. Mr. Marx will be assisted in the California division by C. J. COBERLY; R. E. ALLEN; F. E. DAVIE, Shell Oil Company; JOHN F. DODGE, University of Southern California; WILLIAM N. LACEY, California Institute of Technology; F. G. TICKELL, Stanford University; LESTER C. UREN, University of California and STANLEY C. HEROLD.

FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

This department is conducted in order that men connected with the drilling, producing and transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depths of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Leaky Couplings Serious Item in Pipe Line Maintenance Cost

Your answers to questions about making repairs on corroded pipe lines in recent issues of The Oil and Gas Journal referred entirely to the pipe itself and did not mention the couplings. I have oversight of a small oil pipe line and quite often I find leaks at the couplings. These are a rather difficult problem at times and as a rule I would say they are not caused by corrosion. I would be glad to have suggestions as to cause of these leaks and the best way to handle them.—G. T. S.

Leaking couplings are a serious item in the maintenance cost of pipe lines. A thread and coupling joint in any system of piping is susceptible of developing leaks, and this is especially true of oil pipe lines, because rather large diameters are involved and the joints were made under the conditions of pipe line construction which were not favorable to the making of a tight and otherwise satisfactory joint.

W. G. Heltzel, general superintendent of the Stanolind Pipe Line Co., provides the following information concerning coupling leaks and their repair in response to your letter:

"There may be more than a few causes contributing to the leaking of the joint; but cross threading, or the damaging of the thread when it was screwed into the coupling, has caused many of the leaks. Out-of-roundness of the pipe or coupling is another factor. In the operation of the line, coupling leaks may occur after the operating pressure has been reduced, especially if the line has been strained by an excessive operating pressure. The contraction or expansion of the line during the temperature changes in the late fall and spring of the year effects a stress in the coupling which results in a leak that may be so small that the oil will not come to the surface of the ditch or so large as to cause a pressure drop at the pumping station.

"The customary practice of repairing leaky couplings has been for years the caulking of the coupling by the line-walker or repairman. This practice involves the peening of the metal of the coupling back against the threads by means of a caulking tool and hammer. If the leak could not be stopped by caulking, it was the usual practice to put on a collar-leak clamp, which is a familiar piece of equipment in pipe line industry. It is not uncommon for couplings to spring leaks which cannot be repaired either by caulking or the collar leak clamp, and in such cases the regular stuffing-box clamp was used.

"These practices are still followed in the pipe line industry, but to a lesser extent than before the use of electric welding. Under present practices a leaking coupling may be caulked as in the past, but it is the practice of some companies to install a collar-leak clamp as a temporary repair. If the leak is too bad to permit the use of a collar-leak clamp, it is necessary to resort to the old practice of using a stuffing-box.

"Before making a permanent repair on a leaking coupling, it has been the practice to caulk the coupling if the leak is not too bad, and electric weld both sides of it. If the coupling cannot be caulked entirely dry, or there is some weakness in the thread, general practice has been to electric weld a sleeve over the coupling. This sleeve consists of two halves of a piece of pipe of the right length forged to fit over the coupling. The longitudinal seams of the halves which are fitted over the coupling are welded, as well as the girth seams where the sleeve fits around the pipe.

"If there is any sign of the coupling leaking badly or being too weak to use the electric welding arc, it is necessary to cut out the coupling and replace it with a piece of pipe welded in the line. In general, the electric welded coupling without the sleeve has proved satisfactory, however, there have been sleeves which developed leaks later on as a result of pressure, and this type of repair is not entirely satisfactory."

What the Surface Indications of Underground Petroleum Are

I want to submit a somewhat rudimentary question. There is a lot written about surface indications of oil. Sometimes the writers mention seepages. Are there other indications? If so, what are they?—T. A. T.

Surface indications of underground oil are conveniently divided into two groups, direct and indirect:

Direct.—(1) Exposures of oil-impregnated beds. (2) Seepage of natural oil. (3) Deposits of asphaltic or bituminous matter. (4) Veins, layers or flakes of bitumen or ozokerite. (5) Issues of odorous hydrocarbon gases. (6) Fluorescent films on water surface.

Indirect.—(1) Blackened or discolored strata. (2) Odorous rocks (usually when struck). (3) Exudations of hydrogen-sulphide, carbon dioxide or methane. (4) Escapes of tepid or cold sulphurous or saline waters. (5) Chemical changes in rocks. (6) Efflorescences or precipitations of sulphur and other salts. (7) Geothermal gradient.

Appraisement of any of the foregoing indications naturally must be guided by the geological conditions existing where they occur. If the surface signs are found amid highly disturbed, ruptured or shattered strata or on an open field where the oil measures are wholly exposed or deeply eroded, they merely indicate that an oil field formerly existed there, but if they appear along the crestal zone of well-formed structures, they invite serious investigation.

Daily Drill a Common Precaution Against Blowout Accidents

A friend of mine told me there is a regular drill which must be carried out in fields where there is danger of blowout in a drilling well. He said the drill was required by law and that it was a good deal like the drill that life-saving crews go through. I would like to know more about this. If there is such a drill required in some oil fields can you tell me what it consists of?—E. D. E.

There is no law in any state requiring a "blowout drill," nor is there any uniformity of practice in such drills so far as this department knows. It is a common practice, however, to have such drills and your friend doubtless had heard of these and mistakenly supposed they were required by law. E. P. Hubbard, of the Gulf Production Co., discussed blowout drills in a paper before the American Petroleum Institute in October, 1933. He said:

"Time is the very essence of proper control when a blowout is threatened. In order that the drilling rig personnel may be properly trained and co-ordinated in their operations, many companies require a daily blowout drill by each crew after the well has reached a given depth. This drill is identical with the procedure followed when a blowout is threatened. It not only serves to train the crews but provides a check on the condition of the blowout preventer equipment. Following is an outline of a schedule of operations during a blowout, or drill:

"Crew: Driller, derrick man, fireman, pipe racker—helper No. 1, boll weevil—helper No. 2.

"Procedure: Let down block, and all but derrick man hook into kelly.

"1. Driller picks kelly up out of rat hole.

"2. Fireman, helpers No. 1 and No. 2 stab kelly while derrick man comes down out of derrick.

"3. Fireman closes rams on ram-type preventer.

"4. Derrick man gets pack-off and swings it to drill pipe.

"5. All crew, except fireman and driller, latch pack-off.

"6. Helpers No. 1 and No. 2 pull rotary bushings.

"7. Driller lets pack-off down in bowl, and seals it. (a) Derrick man starts slush pump.

"8. Helpers No. 1 and No. 2 go below and lock rams.

"9. Derrick man closes quick-closing valve.

"10. Close off choke, if still blowing.

"Note: 3-4-5 happen almost simultaneously; 6-7a happen almost simultaneously; 7-8 happen almost simultaneously.

"A brief description of a typical procedure follows: Let it be assumed that the crew is coming out of the hole, and has just set back a stand of pipe, when one of the crew calls the driller's attention to the threat of a blowout. The driller, satisfied as to the reality of the threat, issues orders to close in the well.

"While the driller lets down the block, the derrick man is called down from the derrick and the fireman, if not already on the floor, is called from the boilers.

"The floor crew hooks onto the kelly; the driller pulls it out of the rat hole and the fireman and two helpers make the connection to the drill pipe. The fireman goes to the pressure-line manifold, and closes the ram-type preventer by applying pressure to the rams.

"While the fireman is performing this duty the derrick man has reached the floor and has carried the packing assembly to the rotary. Assisted by the two helpers, he latches it onto the drill pipe. The helpers then remove the rotary bushings from the rotary, and the driller lowers the pipe until the packing assembly is seated in the body, and the dogs latched in the retaining ring of the Hosmer type preventer.

By this time the derrick man has started up a mud pump to provide circulation and is checking the valve on the flow-line choke to be sure that it is open.

"Just as soon as the helpers operate the hand wheels and lock the rams tight on the pipe the driller should instruct the derrick man to close the quick-closing valve on the mud flow line. The choke may be closed or left open as conditions demand.

"It is the duty of the driller to see that the steps in the foregoing procedure are properly carried out, and he should not give the order to close the flow line valve until the rams have been locked and the packing assembly properly seated; otherwise the pressure on the preventers might be too high to permit a positive seal. The flow line choke should be open to reduce the hazard of a water hammer effect upon the closure of the quick-closing valve.

"The crews may be so trained that the complete routine is completed in 1½ minutes."

Why Was It Called That?

OKLAHOMA CITY

Oklahoma City, site of one of the world famous oil pools, got its name from Oklahoma Territory, in which it was located. Allen Wright, Choctaw Indian leader, is credited with suggesting Oklahoma as the name for the new territory formed from land which the Five Civilized Tribes were forced to give up following the Civil War. "Okla" is a Choctaw word meaning people. "Homa," which means red, is spelled also homma, humma and hommah. Oklahoma City was founded April 22, 1889, when Oklahoma Territory was opened for settlement. Its population rose from nothing at noon to an estimated 10,000 on the evening of that day.

NATURAL GAS DEVELOPMENTS

Gain of 360,000 Customers Shown by Gas Companies

The number of domestic customers served by manufactured and natural gas companies on June 30 totaled 14,751,600, it is announced by Paul Ryan, chief statistician of the American Gas Association. This was an increase of 360,000 domestic customers during the six-month interval.

This gain in customers is reflected in the fact that a total of 425,000 gas ranges were sold in the country during the first half of 1934. This was an increase of 42 per cent in range sales over the first six months of 1933. Approximately 70 per cent of such sales consisted of relatively high priced ranges incorporating modern automatic features, such as oven-heat control, etc.

Revenues of manufactured and natural gas utilities aggregated $378,697,300 for the first six months of 1934. This was an increase of 3.1 per cent over the corresponding period of 1933. Revenues from industrial and commercial users increased more than 15 per cent. Revenues from domestic customers, however, were practically unchanged.

Manufactured gas industry revenues totaled $199,782,400 for the first six months, a gain of 1.7 per cent. Revenues from industrial and commercial uses, of manufactured gas gained 6.5 per cent. Revenues from domestic uses, such as cooking, water heating, refrigeration, etc., were 1.4 per cent less than for the corresponding period of 1933.

A somewhat similar situation was reflected in the reports of the natural gas companies. Total revenues for the six months amounted to $178,914,900, a gain of 4.6 per cent over a year ago. Revenues from industrial uses aggregated $45,086,400, representing an increase of 28.7 per cent. Revenues from domestic users of natural gas, however, registered a loss of 2.3 per cent.

Texas Commission Sets Rio Grande Valley Rate

AUSTIN, Tex., Aug. 27.—The Texas Railroad Commission has fixed a rate of 25 cents per 1,000 feet at city gates of cities and towns served by the Rio Grande Valley Gas Co.

The order would affect rates at Alamo, Brownsville, Donna, Edinburg, Elsa, Harlingen, Hidalgo, Laferia, McAllen, Mercedes, Mission, Olmito, Pharr, San Benito, Raymondville, San Juan and Weslaco.

Lon A. Smith, chairman of the commission, said the cities now were in a position to consider ordinances affecting the burner tip rates for domestic consumers. The gate rate, Mr. Smith said, was considerably less than that sought by the company, but the commission "considers it has been liberal in the valuation of the system."

MINNEAPOLIS GAS RATES

MINNEAPOLIS, Minn., Aug. 27.—The Minneapolis city council has approved an agreement with Minneapolis Gas Light Co., subsidiary of American Gas & Power Co., regulating the company's rates for a period of 10 years on a net return basis of $1,250,000 annually. The action will result in a reduction of approximately 9 per cent in rates.

COFFEYVILLE DISCOUNT

COFFEYVILLE, Kans., Aug. 27.—The Union Gas System, Inc., has filed an offer with the city commission of Coffeyville, to abandon the 10 per cent penalty now being charged delinquents and to allow a 5 per cent discount for prompt payment of bills.

The company also offered to reduce the price on quantities over 10,000 feet monthly from 45 cents to 40 cents. This means a rate of 95 cents for the first 1,000 feet, 42½ cents per 1,000 feet for the next 9,000 feet and 38 cents per 1,000 feet for the next 10,000 feet.

The present rate is $1 for the first 1,000 feet and 45 cents for all above 1,000 feet, with a penalty of 10 per cent added if the bill is not paid by the tenth of the succeeding month.

The offer pertains to rates to individual consumers in Coffeyville.

New York-Pennsylvania Field Has Two Good Wells

COUDERSPORT, Pa., Aug. 27.—Gauged at 25,000,000 feet a day, the third largest gas well in the Hebron Field was struck when the No. 1 Willsey was drilled in. The well, located in Hebron Township, is practically surrounded by producing wells. The Tully lime was reached at 4,613 feet and the top of the Onondaga limes at 5,182 feet.

WELLSVILLE, N. Y., Aug. 27.—When the gas well of the Empire Gas & Fuel Co. blew in on Rock Creek, near the town of Greenwood, N. Y., with an estimated pressure of 12,000,000 feet per day, gas men believed it marked the opening of a rich new field. The well is the latest on the Smethport anticline.

The well came in without warning when the bit was at 4,712 feet. Tools were driven nearly to the top of the derrick.

The well is on a 585-acre tract of state-owned property. The State will receive 8½ cents royalty on every 1,000 feet of gas sold.

Natural Gas Production in Niagara Area, Ontario

CHATHAM, Ontario, Aug. 25.—Some new natural gas production has been developed in the eastern or Niagara section of the Ontario fields. In Haldimand County, the Lynn Valley Natural Gas Syndicate of Toronto, drilling in Onedia Township, has brought in No. 4 gasser with a flow of approximately 75,000 feet a day. No. 5 has been spotted. The company is planning a systematic development of its acreage. Gas is encountered at shallow depths, the average drilling time on a well ranging from three to six weeks; while some of the older wells in contiguous territory have maintained a steady production for as much as 15 years.

In Dunn Township, Haldimand County, Columbia Natural Gas & Oil Syndicate is developing holdings amounting to 1,491 acres. No. 3 well, on the Sowell farm, finished late in July, proved a fair gasser, and No. 4 is being drilled. Two previous tests were productive. The syndicate has laid a mile of line to deliver production to the Dominion Natural Gas Co. with which it has a 15-year contract.

In Moulton Township, Haldimand County, the Canadian Natural Gas Syndicate of Toronto holds 450 acres on which eight producing wells have been drilled and no dry holes. Additional drilling will be undertaken. The Dominion Natural Gas Co. takes production under a 10-year contract. The area has three producing horizons, the Clinton and the Red and White Medina formations.

In Walpole Township, Haldimand County, the Sterling gas Co. of Toronto has leases on 634 acres with seven producing wells and an annual output of 30,000,000 feet, delivered under contract to the Dominion Natural Gas Co. The company is financing the drilling of eight additional wells on its acreage.

In Canboro Township, Haldimand County, the May Gold & Natural Gas Syndicate of Toronto is developing 700 acres of leases. Nos. 1 and 2 wells have been completed and No. 3 is drilling. The syndicate plans a total of 20 tests. Scott McNinch of Canboro is in charge of the work. Nos. 1 and 2 have an aggregate daily production of 90,000 feet secured from the Clinton and Red and White Medina formations.

Lowbanks Drillers Gas Syndicate is reported drilling below 585 feet for gas in Haldimand County. The syndicate is planning a total of 10 wells, of which this is the first. Norhal Gas & Oil Syndicate of Toronto has finished two fair gassers on its Haldimand acreage, and is letting a contract for a number of additional wells.

In Walpole Township, Haldimand County, Empire Natural Gas, Ltd., of Toronto has been in operation for approximately a year, completing seven gassers with an aggregate capacity of 1,750,000 feet a day. No. 8 is being drilled and the company is planning to continue operations until late fall. Douglas Banks is president.

Domestic Gas Syndicate has finished a well in Haldimand County with initial open flow of 100,000 feet a day; and is starting a second test. The syndicate's plans call for completion of 10 wells by the end of the year.

Petrol Oil & Gas Co. of Toronto has let contract to George F. Gregory of Petrolia for three more wells to be drilled on the Six Nations Indian Reserve in Brant County.

TEXAS GAS UTILITIES

AUSTIN, Tex., Aug. 27.—The district court of Val Verde County has approved tentatively the amended plan of reorganization of Texas Gas Utilities Co., sponsored by Texas Gas Service Co. The court stated that the terms and conditions under which the deposit of the bonds are being solicited are fair.

The amended plan provides that the first mortgage bondholders of Texas Gas Utilities Co. will receive a new $1,000 first mortgage bond for each $1,000 principal amount of bonds deposited under the plan and fixed interest of 2 per cent per annum on the new bonds accruing from December 31, 1935. First mortgage holders also will receive additional interest up to 4 per cent per annum cumulative to the extent earned from December 31, 1935, and 10 shares of common stock of the new company for each $1,000 bond deposited.

INDUSTRIAL GAS RATE

EDMONTON, Alberta, Aug. 25.—Northwestern Utilities, Ltd., has submitted to the Edmonton city council a proposal for special high load factor rate, optional to the existing general and industrial rate schedule. The suggested rate is to apply to customers under contract whose annual consumption of gas is not less than 6,000,000 feet and whose total consumption from May to October inclusive is not less than 50 per cent of the January to December period.

The fixed charge on the proposed high load factor rate is $20 per month plus $1 per month per 1,000 feet of 12-hour demand. The consumption charge is 15 cents per 1,000 feet for the first 1,000,000 feet per month, and 12 cents per 1,000 feet over that amount.

BARNESVILLE, OHIO, SYSTEM

The Barnesville Development Co., Barnesville, Ohio, has plans in progress for a natural gas distributing system in St. Clairsville, Ohio. More than $60,000 will be expended for pipe lines and other equipment.

SALIENT STATISTICS FOR NATURAL GAS IN THE UNITED STATES, 1912, 1922 AND 1930-32

	1912	1922	1930	1931	1932
Natural gas (millions of cubic feet):					
Production	562,203	762,546	1,943,421	1,686,436	1,555,990
Exports:					
To Canada	.....	.....	107	74	83
To Mexico	.....	.. ....	1,691	2,157	1,610
Imports from Canada	.....	.....	21	44	38
Consumption:					
Domestic	193,455	254,413	295,700	294,406	298,520
Commercial			80,707	86,491	87,367
Industrial:					
Field	(*)	197,850	723,165	571,365	529,378
Carbon-black plants	(*)	53,629	266,625	195,396	168,237
Petroleum refineries	(*)	(*)	98,842	75,548	67,467
Electric public-utility power plants†	(*)	27,172	120,290	138,343	107,239
Portland cement plants‡	(*)	(*)	41,256	31,381	
Other industrial	368,748	229,482	316,059	291,319	296,127
Total	562,203	762,546	1,941,644	1,684,249	1,554,335
Domestic (per cent)	34	33	16	18	19
Commercial (per cent)			4	5	6
Industrial (per cent)	66	67	80	77	75
Number of consumers:					
Domestic (thousands)	1,623	3,015	5,035	§6,443	6,506
Commercial (thousands)			413	§518	531
Industrial (thousands)	15	(¶)	§21	§28	§30
Number of producing gas wells	30,905	(¶)	55,020	55,756	54,156
Value (at wells) of gas produced:					
Total (thousands of dollars)	(¶)	84,873	147,048	117,505	98,985
Average per M cu. ft. (cents)	(¶)	11.1	7.6	7.0	6.4
Value (at points of consumption) of gas consumed:					
Total (thousands of dollars)	84,564	221,535	415,519	392,156	384,123
Domestic (thousands of dollars)	50,961	126,902	200,615	208,262	223,377
Commercial (thousands of dollars)			38,558	41,347	44,000
Industrial (thousands of dollars)	33,603	94,633	176,346	142,547	116,746
Average per M cu. ft.:					
Domestic (cents)	(¶)	(¶)	67.8	70.7	74.8
Commercial (cents)	(¶)	(¶)	47.8	47.8	50.4
Industrial (cents)	9 1	18.6	11 3	10.9	10.0
Domestic and commercial (cents)	26.3	49.9	63.5	65.5	69.3
Domestic, commercial and industrial (cents)	15.0	29.1	21.4	23.3	24.7
Treated for natural gasoline:					
Quanty (millions of cu. ft.)	4,688	545,139	2,088,778	1,790,119	1,499,756
Per cent of total consumption	0.8	71	108	106	96
Natural gasoline:					
Production (thousands of gallons)	12,081	505,832	2,210,494	1,831,918	1,523,800
Value at plants:					
Total (thousands of dollars)	1,157	72,711	128,160	63,732	49,244
Average per gallon (cents)	9.6	14.4	5.8	3.5	3 2
Carbon black:					
Production (thousands of pounds)	(¶)	67,795	379,942	280,907	242,700
Value at plants:					
Total (thousands of dollars)	(¶)	5,820	14,852	8,621	6,664
Average per pound (cents)	(¶)	8.6	3 9	3.1	2.7

*Included under "other industrial"; separate figures not available. †U. S. Geological Survey. ‡Bagley, B. W., Mineral Resources, chapters on Cement. §Revised figures. ¶Figures not available. ‖Exclusive of oil and gas field operators.

MARKET RECORD OF OIL SECURITIES

Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1934 High	1934 Low	Week ended August 25 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	1933 High	1933 Low	1932 High	1932 Low	1931 High	1931 Low
55⅝	41½	1,500	48½	47½	48½	Amerada Corp.	774,875	N.P.	50eQ	7-31-34	47⅝	18½	22⅝	12	23	11¼
35¼	21½	6,700	26⅝	24	26	Atlantic Refining	2,673,834	$25	25eQ	9-15-34	32½	12⅝	21⅞	8⅝	23⅝	8⅝
10	6	6,500	7¼	6¾	7	Barnsdall Corp. A	2,248,795	$5	....	5-11-31	11	3	7	3⅜	14½	4
19¼	7⅝	26,100	10½	8⅞	10¼	Columbia Gas & Elec.	11,610,036	N.P.	12½eQ†	5-15-34	28¼	9	21	4¼	45⅝	11⅝
14¼	7¼	14,900	9½	8½	9⅜	Consolidated Oil Corp.	14,218,835	N.P.	28c	4- 7-34	15⅝	5	9	4	15⅞	4¼
22¾	15⅜	23,300	19	17⅞	18½	Continental Oil of Delaware	4,738,593	$5	25c	4-30-34	19⅝	4⅞	9⅝	3⅝	12	5
23½	12	3,100	17⅞	16⅜	17⅞	General Asphalt	387,149	$10	....	6-15-32	27	4⅝	15½	4⅝	47	9⅝
5⅝	2½	1,600	3⅜	3⅛	3⅜	Houston Oil (new)	1,098,618	$25	....	10-17-30	7⅝	1⅞	5⅝	1⅛	14½	3
3⅜	1¼	No sales ..	..	..	..	Louisiana Oil Refining	1,302,158	N.P.	....	.....	4	⅝	2¼	½	4½	1
14¾	9⅛	6,200	12⅜	11½	12½	Mid-Continent Petroleum	1,857,912	N.P.	25c	5-15-34	16	3⅜	8⅞	3⅜	16⅝	5
21⅛	10	400	14½	13	14	National Supply of Delaware	382,591	$25	....	5-15-31	28⅝	4	13	3½	10¼	5
15⅞	8½	5,800	11	10¼	10⅞	Ohio Oil Co.	6,563,107	N.P.	15c	9-15-34	17⅝	4⅜	11	5	19½	5¼
8⅞	5⅜	300	6	5⅜	6	Pacific Western Oil	1,000,000	N.P.	25c‡	10-25-33	9½	3	8	3	15	2⅝
2½	⅝	100	1	1	1	Panhandle P. & R.	198,770	N.P.	....	.....	4¼	⅜	1¼	¼	4¼	⅜
20⅜	14½	11,600	17⅛	16	16⅜	Phillips Petroleum	4,154,687	N.P.	25c	9-1-34	18⅜	4⅜	8⅛	2	16⅜	4
16¾	8	5,000	10	9⅜	10	Plymouth Oil Co.	990,261	$5	25eQ	6-30-34	17⅝	6⅜	12½	6	18	6
14⅞	7¼	6,000	8⅝	8	8½	Pure Oil	3,038,370	N.P.	....	9- 1-30	15⅜	2½	6½	2⅞	11⅞	3¼
39⅛	32¼	800	34½	33¾	34½	Royal Dutch N. Y. shares	432,224	$14	$1.35	7-31-34	39¾	17⅝	23¾	12½	42⅝	13
38⅝	23¾	2,300	28½	26½	28½	Seaboard Oil of Delaware	1,204,460	N.P.	15eQ§	9-15-34	43⅝	15	20⅝	6⅝	20⅝	5½
11½	6½	3,000	7½	7	7⅝	Shell Union Oil	13,070,625	N.P.	....	6-30-30	11⅝	4	8⅝	2½	10¼	2½
89	57	600	64½	62½	62½	Shell Union Oil pfd.	400,000	$100	....	7- 1-31	61	28½	65¼	18	78	15
11¼	7¼	1,400	9¼	8¾	9¼	Simms Petroleum	461,000	$10	30c	8- 1-34	12⅜	4⅞	7½	3¼	11	3½
11½	6¾	500	8	7½	7½	Skelly Oil	1,008,514	$25	....	12-15-30	9⅞	3	5⅝	2½	12⅞	2
19⅞	12½	22,200	15⅜	14⅜	15¼	Socony-Vacuum	31,019,694	$25	15eQ	9-15-34	17	6	12¼	5¼	21	8⅜
42⅞	30⅝	7,600	35¾	34¼	35⅝	Standard Oil of California	13,102,900	N.P.	25c	9-15-34	45	19½	31⅞	15⅛	51¾	23½
41	30	No sales ..	..	..	..	Standard Oil of Kansas	200,000	$10	50eQ	10-31-34	39⅞	12⅜	16½	7	19	7⅜
50⅛	40⅝	18,000	45¼	44¼	45	Standard Oil of New Jersey	25,740,965	$25	50eSA	6-15-34	47½	22⅜	37⅜	19⅞	52½	26
66	51½	2,100	65⅜	63	65½	Sun Oil	1,733,013	N.P.	25eQ	9-15-34	59	35	39⅞	24⅜	45¼	26⅜
20⅜	20	11,200	24½	23⅝	24½	Texas Corp.	9,486,417	$25	25eQ	10- 1-34	30⅛	10⅜	18⅛	9⅜	36¼	9⅞
6½	2½	700	3⅛	3⅛	3⅛	Texas Pacific Coal & Oil	880,708	$10	....	12-31-29	6¼	1⅜	4	1½	6½	1⅞
14⅜	8½	6,900	11	9⅜	10⅞	Tide Water Associated	5,618,672	N.P.	....	2-16-31	11⅜	3½	5⅝	2	9	2¼
85⅛	64½	800	83	82½	82½	Tide Water Associated pfd.	666,524	$100	$1.50Q	4- 1-34	65¼	23½	60	20	66	30½
20½	13¾	2,300	16¼	15⅝	16¼	Union Oil of California	4,386,070	$25	25eQ	8-10-34	23⅜	8½	15⅝	8	26⅝	11
21¼	15⅝	500	19⅜	18⅝	19⅜	Union Tank Car	1,200,000	N.P.	30eQ	9- 1-34	22⅜	10½	19¼	11⅜	25¼	16
5¾	2½	1,400	4⅛	3⅞	4	Wilcox Oil & Gas	424,839	$5	....	5-10-28	5½	2	8¾	2¾	9⅝	3¾

*Ex-dividend. †Payable in 5 per cent convertible preferred stock. ‡Initial dividend. §Plus extras.

Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1934 High	1934 Low	Week ended August 25 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	1933 High	1933 Low	1932 High	1932 Low	1931 High	1931 Low
38	26	100	33	33	33	Buckeye Pipe Line Co.	200,000	$50	75eQ	9-15-34	39⅝	25	35	17½	56	30
5½	2¾	4,500	4	3⅝	3⅞	Carib Syndicate	579,000	25c	....	.....	7⅝	⅛	⅝	⅛	2⅜	¼
126½	115	200	125	122½	122½	Chesebrough Mfg. Co.	120,000	$25	$1Q†	9-29-34	129	71	90	53	129½	75
4¼	1⅝	22,400	2	1⅞	2	Cities Service	37,804,394	N.P.	....	6- 1-32	6¼	1½	6⅞	1¼	20⅝	5
3¼	1¼	100	1½	1½	1½	Colon Oil	2,200,000	N.P.	....	.....	4	¼	1¼	⅛	3½	⅛
3⅞	1⅛	500	1½	1⅜	1½	Cosden Oil	399,687	$1	....	.....	3⅞	1⅜	2⅞	¼	3⅝	⅜
14⅜	9⅝	22,000	14⅜	12⅜	14	Creole Petroleum	6,974,356	$5	....	.....	12	4⅜	3⅛	1⅜	3⅞	1⅜
7½	4⅝	200	5¼	5⅛	5¼	Darby Petroleum	509,696	$5	25c	2-15-34	8	2½	7⅛	1⅝	2½	1⅜
2¼	1¼	No sales ..	..	..	..	Derby Oil & Refining	263,162	N.P.	....	.....	2¾	⅜	3	1	6	1½
37	30	No sales ..	..	..	..	Eureka Pipe Line	50,000	$100	$1Q	8- 1-34	41⅝	20	35	18	36	19
76¾	50	1,600	58	55	58	Gulf Oil Corp.	4,538,101	$25	....	10- 1-31	62	24	44⅝	23	75½	25⅜
46⅜	33½	3,100	43½	42½	43½	Humble Oil & Refining (new)	8,923,935	N.P.	25eQ	7- 1-34	105½	40	55	35⅝	72	44½
15½	12⅝	12,900	15½	14⅞	15½	Imperial Oil of Canada	26,857,152	N.P.	25eSA†‡	6- 1-34	15⅞	6½	10⅞	6¼	18¼	7⅜
6⅞	4	200	4⅛	4	4	Indiana Pipe Line	300,000	$10	15eSA	5-15-34	8	3⅛	7½	2⅜	21⅛	5½
30⅝	19⅜	15,800	30¼	28½	29⅜	International Petroleum	14,247,068	N.P.	56eSA†‡	6- 1-34	23½	8⅞	12¼	8	15½	7⅜
4	2⅞	3,700	3⅝	3½	3½	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	2¼	⅛	2½	½	2	½
5⅞	3½	200	4	4	4	Lion Oil Refining	270,000	N.P.	....	10-27-30	9½	1¼	3½	⅞	6⅝	1½
8⅜	4⅝	3,900	5⅜	5	5⅜	Lone Star Gas	5,382,723	N.P.	16eQ§	3-31-34	11⅞	4⅜	11	3⅜	29	5½
5½	4	600	4⅝	4½	4⅝	Mountain Producers	1,593,584	$10	15eQ	4- 2-34	6½	2½	4⅜	2¼	5⅞	2
18⅛	13½	1,300	15¼	14⅞	15⅛	National Fuel Gas	3,810,183	N.P.	25eQ	4-16-34	20	10	14⅜	8	26½	9¾
9½	7⅝	No sales ..	..	..	..	National Transit	509,000	$12.50	40eSA	6-15-34	10	5½	10½	6	17½	5
2½	1¾	100	2⅛	2⅛	2⅛	New Bradford Oil	1,445,202	$5	10c	9-15-34	2⅛	½	⅞	¼	1⅜	⅛
2¾	1	100	1⅛	1⅛	1⅛	New Mexico and Arizona	1,000,000	$1	....	.....	1⅛	½	1¼	⅜	3	¾
4¾	3	No sales ..	..	..	..	New York Transit	100,000	$5	15eSA	4-14-34	4⅛	3	9¾	7½	14½	5⅜
7	4⅝	100	5⅜	5⅜	5⅜	Northern Pipe Line	120,000	$10	25eSA	1- 2-34	6⅛	4¼	5½	3½	35½	20
2⅝	⅞	33,800	2¼	1⅜	2⅛	Pantepec Oil	1,608,700	N.P.	....	.....	3⅜	⅛	⅝	⅛	2	⅜
3⅜	⅞	200	1	⅞	⅞	Ryan Consolidated	296,931	N.P.	....	.....	4¼	⅜	2⅛	⅜	3	⅜
7⅞	5½	1,100	6	5⅞	6	Salt Creek Producers	1,496,859	$10	20eQ	8- 1-34	9¼	3½	5½	2¼	7⅜	2⅝
26½	17½	2,000	24¼	22¾	24	South Penn Oil	1,200,000	$25	30eQ	6-30-34	22⅛	11	16½	9⅝	23⅞	9¼
5½	4	No sales ..	..	..	..	Southern Pipe Line	100,000	$10	15eSA	9- 1-34	6	2⅛	10	3⅜	17	7
47	41	No sales ..	..	..	..	Southwest Penna. Pipe Lines	35,000	$50	$1Q	7- 2-34	43	24½	37	27	42½	25
32¾	25	7,700	27⅜	27	27¼	Standard Oil of Indiana	15,941,894	$25	25eQ	9-15-34	34	17	25⅛	13⅛	38⅛	13⅛
17⅝	14⅝	2,800	16¼	15⅜	16¼	Standard Oil of Kentucky	2,606,983	$10	25eQ	9-15-34	19¼	8⅜	15⅞	8⅞	23⅝	12⅜
16⅞	9	100	9¼	9¼	9¼	Standard Oil of Nebraska	190,822	$25	....	6-20-34	20½	11	19	10¼	36½	16
28½	14	100	16	15	16	Standard Oil of Ohio	753,740	$25	....	1- 3-33	41	15½	30⅛	15½	62½	28
2	1/16	4,800	1½	1⅜	1⅜	Sunray Oil	1,162,840	$5	....	4-15-31	1½	¼	⅝	⅛	5¼	⅛
11	4⅜	400	5¼	5	5¼	Texon Oil & Land	936,028	N.P.	15eQ	6-30-34	15¾	6¼	10½	4½	12⅞	3⅛

*Ex-dividend. †Plus extras. ‡Payable in Canadian funds. §Payable in preferred stock.

Note—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

Bureau of Mines Statistics for the Month of June, 1934

SUPPLY AND DEMAND OF ALL OILS

(Thousands of barrels of 42 gallons)

	June, 1934	May, 1934	June, 1933	Jan.-June, 1934	Jan.-June, 1933
NEW SUPPLY:					
Domestic production:					
Crude petroleum	80,040	79,870	82,841	448,680	433,230
Daily average	2,668	2,576	2,762	2,479	2,394
Natural gasoline	2,838	2,907	2,669	17,509	16,309
Benzol*	160	172	126	905	591
Total production	82,938	82,949	85,636	467,094	450,130
Daily average	2,768	2,676	2,855	2,581	2,487
Imports:					
Crude petroleum	†3,575	†3,012	2,143	17,672	16,262
Refined products	1,137	1,444	712	6,911	7,015
Total new supply, all oils	87,750	87,405	88,491	491,678	473,407
Daily average	2,925	2,820	2,950	2,716	2,616
Decrease in stocks, all oils	‡2,095	2,082	‡1,384	12,405	‡11,477
DEMAND:					
Total demand	85,655	89,487	87,107	504,083	461,930
Daily average	2,855	2,887	2,904	2,785	2,552
Exports:					
Crude petroleum	3,795	3,724	4,378	18,842	15,955
Refined products	6,056	5,915	5,093	37,121	33,538
Domestic demand:					
Motor fuel	36,296	38,141	37,710	192,164	179,934
Kerosene	2,372	3,222	3,115	21,865	18,950
Gas oil and fuel oil	23,961	26,744	25,343	171,004	157,132
Lubricants	1,569	1,941	1,646	9,546	7,763
Wax	87	78	126	497	554
Coke	563	524	596	4,204	4,231
Asphalt	1,602	1,285	1,310	5,181	4,738
Road oil	1,262	779	1,016	2,921	1,835
Still gas (production)	3,707	3,674	4,141	20,959	21,436
Miscellaneous	148	172	133	884	703
Losses and crude used as fuel	4,237	3,288	2,500	18,895	15,061
Total domestic demand	75,804	79,848	77,636	448,120	412,437
Daily average	2,527	2,576	2,588	2,476	2,279
STOCKS:					
Crude petroleum	357,239	355,883	348,197	357,239	348,197
Natural gasoline	4,574	4,420	3,763	4,574	3,763
Refined products	227,995	227,410	247,626	227,995	247,626
Total, all oils	589,808	587,713	599,586	589,808	599,586
Days' supply	207	204	206	212	235

*From Coal Division. †Receipts of foreign crude as reported to Bureau of Mines. ‡Increase.

STOCKS OF CRUDE PETROLEUM BY STATES AND BY LOCATION

(Thousands of barrels of 42 gallons)

	June 30, 1934				May 31, 1934			
	Refinery	Pipe line	Lease	Total	Refinery	Pipe line	Lease	Total
Arkansas	547	3,864	330	4,741	514	4,275	350	5,139
California	8,916	24,886	1,705	35,507	9,292	24,429	1,746	35,467
Colorado	283	76	20	379	304	72	20	396
Georgia*	759	.....	.....	759	613	.....	.....	613
Illinois	1,259	10,916	95	12,270	1,463	10,709	100	12,272
Indiana	1,440	1,827	8	3,275	1,400	1,685	8	3,093
Kansas	1,838	12,520	420	14,778	1,936	12,477	400	14,813
Kentucky†	480	465	66	1,011	491	511	76	1,078
Louisiana‡	4,397	8,024	215	12,636	4,375	7,648	225	12,248
Maryland	1,309	.....	.....	1,309	1,357	.....	.....	1,357
Massachusetts§	1,310	.....	.....	1,310	1,338	.....	.....	1,338
Michigan	305	632	85	1,022	303	713	70	1,086
Missouri‖	181	3,496	.....	3,677	182	3,448	.....	3,630
Montana	210	506	70	786	171	487	70	728
New Jersey	5,805	349	.....	6,154	5,492	326	.....	5,818
New Mexico	9	311	180	500	7	271	175	453
New York	1,388	103	17	1,508	1,633	114	17	1,764
Ohio	1,197	7,657	95	8,949	1,070	7,628	100	8,798
Oklahoma	4,103	84,345	1,690	90,138	4,168	84,123	1,630	89,921
Pennsylvania	4,143	1,841	90	6,074	4,460	1,873	90	6,422
Texas	12,823	105,041	2,830	120,694	13,085	103,681	2,770	119,536
Utah	315	.....	.....	315	322	.....	.....	322
West Virginia	59	2,027	120	2,206	72	2,018	125	2,215
Wyoming‖	12,366	14,525	350	27,241	12,283	14,712	350	27,345
Total United States	65,442	283,411	8,386	357,239	66,361	281,200	8,322	355,883

*Includes South Carolina and Virginia. †Includes Tennessee. ‡Includes Alabama. §Includes Rhode Island. ‖Includes Iowa. ‖Includes Nebraska and South Dakota.

STOCKS HELD BY REFINING COMPANIES, JUNE 30, 1934

(Thousands of barrels of 42 gallons)

	Gasoline					
	At refineries	Bulk and pipe lines	Total	Kerosene	Gas oil and distillate fuels	Residual fuel oils
East Coast	5,383	11,027	16,410	1,512	3,339	5,904
Appalachian	1,080	1,142	2,222	243	212	261
Ind., Ill., Ky., etc.	5,393	3,212	8,605	607	2,072	2,018
Okla., Kans., Mo.	3,715	1,685	5,400	570	1,050	1,637
Texas Inland	1,461	71	1,532	130	279	1,545
Texas Gulf	3,929	1,082	5,011	1,530	3,525	4,433
Louisiana Gulf	573	588	1,161	410	1,414	1,193
Ark. and La. Inland	292	44	336	32	162	886
Rocky Mountain	1,142	.....	1,142	132	168	372
California	10,916	1,481	12,397	1,169	4,092	74,815
Total	33,885	20,332	54,217	6,235	16,313	93,054

	Wax (thousands of pounds)			Coke
	Lubricants	Crude scale	Refined	Total	(tons)
East Coast	2,072	21,117	25,609	46,726	18,800
Appalachian	939	14,270	1,528	15,798	5,800
Ind., Ill., Ky., etc.	509	13,767	1,550	15,317	57,700
Okla., Kans., Mo.	471	3,344	1,778	5,022	54,100
Texas Inland	106	.....	32	32	62,400
Texas Gulf	1,596	2,304	13,204	15,508	119,100
Louisiana Gulf	98	321	1,333	1,954	400
Ark. and La. Inland	17	.....	.....	.....	100
Rocky Mountain	110	6,746	984	7,730	37,600
California	835	.....	.....	.....	98,300
Total	6,752	62,069	46,018	108,087	504,100

	Asphalt (tons)	Road oil	Miscellaneous	Unfinished oils—Crude	Unfinished oils—gasoline	Unfinished oils—Other	Natural gasoline
East Coast	119,400	89	29	1,062	7,582	213	
Appalachian	15,500	22	29	273	1,560	4	
Ind., Ill., Ky., etc.	79,500	141	25	1,186	5,568	37	
Okla., Kans., Mo.	8,200	261	23	756	4,990	52	
Texas Inland	.....	46	12	295	1,054	14	
Texas Gulf	16,600	24	40	1,929	9,511	182	
Louisiana Gulf	20,400	10	..	228	1,274	21	
Ark. and La. Inland	40,900	47	2	32	273	3	
Rocky Mountain	4,900	227	7	176	1,763	9	
California	52,600	142	59	963	4,123	2,385	
Total	358,000	1,009	227	6,905	38,295	2,920	

Grand total stocks refined products, 227,995,000 bbls.

COMPARATIVE ANALYSES

(Thousands of barrels of 42 gallons)

	June, 1934 Total	June, 1934 Dy.av.	May, 1934 Total	May, 1934 Dy.av.	Jan.-June, 1934	Jan.-June, 1933
CRUDE PETROLEUM:						
Runs to stills	76,054	2,535	76,258	2,460	435,664	412,900
MOTOR FUEL:						
Production	35,516	1,184	36,068	1,163	204,852	195,556
Imports	.....	.....	.....	.....	1	6
Exports*	2,057	69	1,907	62	13,192	14,852
Stocks: Gasoline	54,217	....	57,208	....	54,217	50,818
Stocks: Nat. gasoline	4,574	....	4,420	....	4,574	3,763
Domestic demand	36,296	1,210	38,141	1,230	192,164	179,934
KEROSENE:						
Production	4,206	140	4,548	147	26,445	24,249
Imports	.....	....	.....	....	.....	.....
Exports	969	32	678	22	4,802	3,869
Stocks	6,335	....	5,470	....	6,335	6,404
Domestic demand	2,372	79	3,222	104	21,865	18,950
GAS OIL AND FUEL OIL:						
Production	27,307	910	27,705	894	161,167	153,293
Transfers†	871	29	353	11	4,395	5,139
Imports:						
Bonded warehouses	375	29	1,074	35	5,380	1,809
For domestic use	236	8	351	11	1,373	5,087
Exports	2,230	74	2,501	81	13,938	9,436
Stocks	109,377	....	106,279	....	109,377	127,721
Domestic demand	23,961	799	26,744	863	171,004	157,132
Railroad (Class 1)‡	(§)	(§)	3,621	117	¶17,854	¶16,175
Pub. util. pow. plants‖	883	30	800	26	5,060	4,045
Other	23,078	769	22,323	720	148,080	136,912
Bunker oil	2,449	82	2,570	83	15,030	16,728
LUBRICANTS:						
Production	2,211	74	2,577	83	13,325	11,078
Imports	.....	....	.....	....	.....	.....
Exports	663	22	659	21	4,057	3,951
Stocks	6,752	....	6,773	....	6,752	7,734
Domestic demand	1,569	52	1,941	63	9,546	7,763
WAX (thousands of pounds):						
Production	40,320	2,837	41,720	1,346	250,320	218,120
Imports						
Bonded warehouses	280	9	1,326	43	3,110	726
For domestic use	2,432	81	2,655	86	23,112	11,222
Exports	13,185	406	14,040	453	97,812	125,685
Stocks	108,087	....	101,551	....	108,087	112,614
Domestic demand	24,311	810	21,864	705	139,476	155,401
COKE (short tons):						
Production	104,400	3,480	74,400	2,400	653,200	786,300
Stocks	504,100	....	514,500	....	504,100	1,185,400
ASPHALT (short tons):						
Production	278,400	9,280	250,400	8,077	1,140,100	949,000
Imports (natural)	2,900	97	900	29	10,700	10,300
Stocks	358,000	....	382,300	....	358,000	287,600

*Includes benzol—17,161 bbls. in June, 1934. †Net transfers in California. ‡Interstate Commerce Commission. §Not available. ¶January-May. ‖U. S. Geological Survey.

PRODUCTION OF CRUDE PETROLEUM BY STATES AND PRINCIPAL FIELDS

(Thousands of barrels of 42 gallons)

	June, 1934 Total	June, 1934 Dy.av.	May, 1934 Total	May, 1934 Dy.av.	Jan.-June, 1934	Jan.-June, 1933
Arkansas	963	32	936	30	5,548	5,674
California:						
Huntington Beach	1,423	48	1,292	42	7,423	4,811
Kettleman Hills	1,841	61	1,834	59	10,050	10,824
Long Beach	2,168	72	2,114	68	11,632	12,731
Santa Fe Springs	1,254	42	1,294	42	7,575	9,582
Rest of State	8,781	293	8,537	275	49,788	46,460
Total California	15,467	516	15,071	486	86,478	84,408
Colorado	35	3	98	3	523	481
Illinois	392	13	411	14	2,300	1,828
Indiana	72	2	75	2	407	311
Kansas	4,101	137	4,173	135	22,993	19,693
Kentucky	440	15	350	11	2,198	2,192
Louisiana:						
Gulf Coast	1,921	64	1,853	60	9,167	6,766
Rest of State	708	24	764	25	4,652	4,917
Total Louisiana	2,629	88	1,617	85	13,819	11,683
Michigan	935	31	1,002	32	5,343	2,724
Montana	292	10	276	9	1,448	982
New Mexico	1,418	47	1,426	46	8,091	6,448
New York	313	10	319	10	1,792	1,489
Ohio:						
Central and Eastern	273	9	299	10	1,606	1,575
Northwestern	89	3	95	3	499	488
Total Ohio	362	12	394	13	2,105	2,063
Oklahoma:						
Oklahoma City	6,084	203	6,175	199	33,653	26,942
Seminole	3,463	116	3,331	107	19,461	19,453
Rest of State	6,962	232	6,968	225	39,730	35,352
Total Oklahoma	16,509	551	16,474	531	92,844	81,747
Pennsylvania	1,288	43	1,301	42	7,102	5,984
Tennessee	1	....	1	....	5	2
Texas:						
Gulf Coast	5,011	167	5,166	167	29,396	27,521
West Texas	4,161	139	4,384	141	24,385	29,146
East Texas	16,582	553	16,280	525	91,399	101,043
Panhandle	1,762	58	1,770	57	9,650	8,227
Rest of State	5,738	191	5,843	189	32,944	32,181
Total Texas	33,244	1,108	33,443	1,079	187,594	198,118
West Virginia	343	11	351	11	2,021	1,759
Wyoming:						
Salt Creek	537	18	556	18	3,228	3,594
Rest of State	646	21	596	19	2,841	2,045
Total Wyoming	1,183	39	1,152	37	6,069	5,639
U. S. Total	80,040	2,668	79,870	2,576	448,680	433,230

PRODUCTION OF CRUDE PETROLEUM BY DISTRICTS

(Thousands of barrels of 42 gallons)

	June, 1934 Total	June, 1934 Dy.av.	May, 1934 Total	May, 1934 Dy.av.	Jan.-June, 1934	Jan.-June, 1933
Appalachian:						
Pennsylvania Grade	2,077	69	2,117	68	11,709	9,992
Other (inc. Kentucky)	581	19	594	16	3,024	3,009
Lima-N. E. Indiana-Michigan	1,024	34	1,097	35	5,842	5,228
Illinois-S. W. Indiana	464	15	486	16	2,707	2,133
Mid-Continent:						
North Louisiana and Arkansas	1,671	56	1,700	55	10,200	10,591
West Texas-S. E. New Mexico	5,546	185	5,770	186	32,188	35,413
East Texas	16,582	553	16,280	525	91,399	101,043
Other (Okla., Kans., N. Texas, etc.)	28,100	937	28,360	912	158,421	141,846
Gulf Coast	6,932	231	7,019	227	38,463	34,287
Rocky Mountain	1,596	53	1,566	50	9,248	7,278
California	15,467	516	15,071	486	86,478	84,408
Total	80,040	2,668	79,870	2,576	448,680	433,230

STOCKS OF CRUDE PETROLEUM
(Thousands of barrels of 42 gallons)

	June 30, 1934	May 31, 1934	June 30, 1933
EAST OF CALIFORNIA:			
At refineries by location:			
East Coast: Domestic	10,540	10,943	9,464
Foreign	2,857	2,578	3,299
Appalachian	1,599	1,714	2,334
Indiana, Illinois, Kentucky, Michigan	4,458	4,487	3,768
Oklahoma, Kansas and Missouri	6,122	6,286	4,220
Texas: Inland	1,872	1,947	2,981
Gulf Coast: Domestic	10,804	11,018	6,315
Foreign	147	120	35
Louisiana Gulf Coast: Domestic	3,631	3,591	3,904
Foreign	602	583	728
Arkansas and Inland Louisiana	711	715	616
Rocky Mountain	13,183	13,057	12,556
California	8,916	9,292	10,627
Total	65,442	66,361	60,847
At refineries by origin:			
Pennsylvania Grade	1,388	1,451	2,187
Other Appalachian (inc. Kentucky)	622	601	571
Lima-N. E. Indiana-Michigan	544	475	225
Illinois-S. W. Indiana	134	152	137
North Louisiana and Arkansas	2,012	2,286	2,376
West Texas and S. E. New Mexico	4,202	3,898	4,541
East Texas	7,604	9,291	
Oklahoma, Kansas, N. Texas, etc.	17,065	16,846	19,048
Gulf Coast	6,198	5,704	4,535
Rocky Mountain	13,149	13,054	12,538
California	8,916	9,292	10,627
Foreign	3,606	3,281	4,062
Total	65,442	66,361	60,847
Pipe-line and tank-farm:			
Pennsylvania Grade	3,635	3,621	4,267
Other Appalachian (inc. Kentucky)	732	787	780
Lima-N. E. Indiana-Michigan	1,107	1,251	718
Illinois-S. W. Indiana	11,138	11,140	11,240
North Louisiana and Arkansas	8,836	8,815	10,968
West Texas and S. E. New Mexico	25,323	25,500	29,579
East Texas	35,950	†34,838	
Oklahoma, Kansas, N. Texas, etc.	146,083	145,220	169,129
Gulf Coast	10,592	†10,319	10,843
Rocky Mountain	15,129	15,300	15,516
California	24,886	24,429	26,910
Total	283,411	281,200	279,950
Lease (producers') stocks	8,386	8,322	*7,400
Total refinable crude in the United States	357,239	355,883	348,197

*East of California only. †Revised.

INDICATED DOMESTIC DEMAND FOR CRUDE PETROLEUM
(Thousands of barrels of 42 gallons)

Domestic petroleum by fields of origin:	June, 1934 Total	June, 1934 Dy.av.	May, 1934 Total	May, 1934 Dy.av.	Jan.-June, 1934	Jan.-June, 1933
Appalchian:						
Pennsylvania Grade	2,162	72	2,142	69	12,285	10,503
Other (inc. Kentucky)	581	19	504	16	3,024	3,009
Lima-N. E. Indiana-Michigan	1,066	36	1,087	35	5,948	3,562
Illinois-S. W. Indiana	489	16	377	12	2,636	2,081
Mid-Continent:						
Nor.h Louisiana and Arkansas	1,953	65	1,877	61	11,283	11,179
West Texas-S. E. New Mexico	5,403	180	6,034	195	35,627	37,224
East Texas	17,087	570	*17,480	564	93,676	
Other (Okla., Kans., N. Texas, etc.)	26,958	899	26,250	847	140,622	224,825
Gulf Coast	6,165	205	*5,897	190	37,783	35,457
Rocky Mountain	1,672	56	1,121	36	7,477	6,982
California	14,561	485	14,840	479	83,027	81,026
Total demand	78,143	2,605	77,670	2,506	442,474	416,024
Exports	3,795	127	3,724	120	18,842	15,955
Domestic demand	74,348	2,478	73,946	2,386	423,632	400,069
Foreign petroleum	3,250	109	3,256	105	17,122	18,804
Total domestic demand	77,598	2,587	77,202	2,491	440,754	418,873

*Revised.

RECEIPTS OF FOREIGN CRUDE PETROLEUM
(Thousands of barrels of 42 gallons)

Atlantic seaboard—	June, 1934	May, 1934
Venezuela	2,094	2,033
Colombia	435	497
Mexico	660	486
Gulf Coast:		
Mexico	264	16
Venezuela	72	....
Total	3,575	3,012

RECORD OF WELLS FOR IMPORTANT FLUSH FIELDS, JUNE, 1934*

	Completions Oil	Gas	Dry	Total initial production (bbls.)	Avg. initial production (bbls.)	Drilling June 30
Texas	628	21	195	932,500	1,500	1,082
East Texas	236	1	5	636,500	1,900	252
Gulf coast	53	4	43	36,300	680	182
Conroe	13	..	..	18,900	1,450	12
Greta	10	1	..	3,300	330	17
West Texas	33	1	6	220,600	6,680	120
California	35	..	6	36,300	1,040	200
Kettleman Hills	3	..	..	16,000	5,330	27
Long Beach	6	..	..	1,500	250	19
Huntington Beach	2	..	2	200	100	3
Oklahoma	102	5	48	55,850	550	422
Oklahoma County	7	..	..	5,400	770	35
Pottawatomie County / Seminole County	11	..	3	6,900	630	71
New Mexico	7	..	3	7,850	1,090	60
Lea County (Hobbs)	5	..	..	7,600	1,520	15
Other states	354	98	111	72,000	200	1,199
Total United States	1,126	124	363	1,104,300	980	2,963

*From The Oil and Gas Journal and California office of the American Petroleum Institute.

GASOLINE PRODUCTION BY THE VARIOUS METHODS, JUNE, 1934
(Thousands of barrels of 42 gallons)

	Straightrun Total	Straightrun Per cent *	Straightrun Per cent †	Cracked Total	Cracked Per cent *	Cracked Per cent †	Nat. gasoline Total	Nat. gasoline Per cent †	Gasoline Total	Gasoline Per cent *
East Coast	2,719	19.0	51.5	2,537	17.7	48.0	28	0.5	5,284	36.7
Appalachian	758	24.6	50.0	734	23.9	48.4	24	1.6	1,516	48.5
Ind., Ill., etc.	2,367	22.8	42.5	3,055	29.5	54.8	152	2.7	5,574	52.3
Okla., Kans., Mo.	2,414	29.5	51.5	1,845	22.6	39.3	430	9.2	4,689	52.1
Texas Inland	1,702	34.5	60.9	828	16.8	29.6	267	9.5	2,797	51.2
Texas Gulf	3,493	23.9	52.3	3,042	20.8	45.5	145	2.2	6,680	44.7
Louisiana Gulf	759	21.2	58.2	534	14.6	40.2	20	1.5	1,303	35.8
Ark. and La. Inland	393	22.2	47.1	397	22.4	47.6	44	5.2	834	44.6
Rocky Mountain	428	28.0	51.6	335	21.9	40.4	66	8.0	829	49.9
California	3,035	22.6	67.7	1,381	10.1	25.9	878	16.4	5,344	32.7
Total	18,118	23.8	52.0	14,679	19.3	42.1	2,054	5.9	34,850	43.1

*Per cent of crude run. †Per cent of total gasoline output.

RUNS TO STILLS AND OUTPUT OF REFINERIES, JUNE, 1934
(Thousands of barrels of 42 gallons)

	Crude oil Domestic	Crude oil Foreign	Crude oil Total	Unfinished rerun (net) Crude gasoline	Unfinished rerun (net) Other	Natural gasoline
Input—						
East Coast	11,357	2,952	14,309	—222	93	28
Appalachian	3,076	....	3,076	30	218	24
Ind., Ill., Ky., etc.	10,374	....	10,374	37	42	152
Okla., Kans., Mo.	8,179	....	8,179	36	18	430
Texas Inland	4,930	....	4,930	75	6	267
Texas Gulf	14,515	114	14,629	490	—141	145
Louisiana Gulf	3,418	164	3,582	8	—206	20
Ark. and La. Inland	1,770	....	1,770	— 1	5	44
Rocky Mountain	1,529	....	1,529	21	— 56	66
California	13,676	....	13,676	— 39	—313	*883
Total	72,824	3,230	76,054	425	—333	2,059

Output—	Gasoline	Kerosene	Gas oil and distillate fuels	Residual fuel oils	Lubricants	Wax (thousands of pounds)
East Coast	5,284	776	1,628	3,971	570	18,486
Appalachian	1,516	250	203	426	480	6,726
Ind., Ill., Ky., etc.	5,574	435	985	1,553	209	4,200
Okla., Kans., Mo.	4,689	587	545	1,589	244	3,080
Texas Inland	2,797	210	319	1,370	35	780
Texas Gulf	6,680	918	1,805	3,910	455	2,520
Louisiana Gulf	1,303	356	377	999	35	2,520
Ark. and La. Inland	834	85	90	541	11	....
Rocky Mountain	829	36	76	289	27	2,520
California	5,344	453	2,014	5,488	145	....
Total	†34,850	4,206	8,042	20,136	2,211	40,320

Output (cont'd)—	Coke (tons)	Asphalt (tons)	Road oils	Still gas	Miscellaneous	Shortage
East Coast	13,000	146,400	102	768	41	132
Appalachian	1,600	10,400	23	192	30	139
Ind., Ill., Ky., etc.	43,800	48,000	369	807	21	155
Okla., Kans., Mo.	19,000	5,300	164	402	16	283
Texas Inland	4,800	....	47	109	12	354
Texas Gulf	15,400	16,700	20	806	24	327
Louisiana Gulf	200	13,500	1	106	..	143
Ark. and La. Inland	200	6,900	63	45	6	104
Rocky Mountain	6,400	4,700	117	86	2	21
California	....	26,500	228	386	‡16	— 13
Total	104,400	278,400	1,134	3,707	168	1,554

*Includes 121,000 bbls. run through pipe lines. †Includes 448,000 bbls. special naphthas. ‡Includes 5,000 bbls. liquefied petroleum gas made from natural gasoline.

CRACKED OPERATIONS
Fresh cracking stock charged to stills—crude, 4,227,000 bbls.; other oils, 34,539,000 bbls.; gasoline produced by cracking, 14,678,000 bbls.; fuel oil produced by cracking, 14,797,000 bbls.

SHIPMENTS FROM CALIFORNIA TO EASTERN PORTS IN THE UNITED STATES*
(Thousands of barrels of 42 gallons)

	June, 1934	May, 1934	June, 1933	Jan.-June, 1934	Jan.-June, 1933
Gasoline	872	798	1,026	3,728	4,933
Natural gasoline	...	...	...	...	81
Kerosene	79	11	80	841	870
Gas oil and Diesel oil	3	81	...	1,313	1,286
Fuel oil	1,115	1,545	73	8,016	800
Lubricants	9	1	1	33	18
Asphalt	...	70	...	72	...
Miscellaneous	16	12	1	47	121
Total	2,094	2,518	1,181	14,050	8,109

*Compiled by E. T. Knudsen of the San Francisco office of the Bureau of Mines.

SHIPMENTS OF MOTOR FUEL BY PIPE LINES
(Thousands of barrels of 42 gallons)

	June, 1934	May, 1934	June, 1933	Jan-June 1934	Jan-June 1933
Motor fuel turned into lines	4,072	4,022	3,209	20,971	17,242
Motor fuel delivered from lines	4,134	4,005	3,222	21,051	17,227
Shortage	*1	12	14	43	25
Stocks in lines and working tanks end of month	1,192	1,253	1,188	1,192	1,188

*Overage.

NUMBER OF WELLS COMPLETED IN THE UNITED STATES*

	June, 1934	May, 1934	June, 1933	Jan.-June, 1934	Jan.-June, 1933
Oil	1,126	1,112	387	5,802	2,993
Gas	124	98	65	576	389
Dry	363	369	247	1,916	1,674
Total	1,613	1,579	699	8,294	5,056

*From The Oil and Gas Journal and California office of the American Petroleum Institute.

Oklahoma Fields

(Continued from Page 50)

had been shut down at a total depth of 1,940 feet since April, was abandoned.

Ed Moore and others' No. 2 Wirrick, NE SE SW Section 29-2-7, which topped Wilcox sand at 3,951 feet, stopping at 3,997 feet, total depth, was holding up nicely flowing through an almost closed gate valve and available gauges are as follows: August 15, 448 bbls.; August 16, 297 bbls.; August 17, 69 bbls.; August 19, 101 bbls.; August 20, 121 bbls.

The deep sand test of Crosbie & Moran, No. 2 Hardin, NW SW NE Section 30-2-7, Fitts Pool, was officially completed, flowing 1,400 bbls. through 2½-inch tubing with an estimated 3,000,000 feet of gas in eight and one-half hours. Production is coming from dolomitic sands logged at 4,180-4,290 feet, total depth.

The other big well in the Fitts Pool, J. C. Shaffer's No. 1-A A. Hardin, NE NW SW Section 30-2-7, Pontotoc County, which also is producing from the deep horizon, was a completion. Its gauge was 1,882 bbls. of oil in nine and one-half hours flowing through 2½-inch tubing, production coming from dolomitic sands encountered from 4,069-4,210 feet, total depth.

Pontotoc County drew eight new tests during the past week, five of which were in the Fitts Pool. Wallace & Nichols' No. 1 Stringer, NE SE Section 28-5-6, spudding; Crabb & Craw Oil Co.'s No. 1-A Breco, SE NE SW Section 3-4-6, rigging up; Bishop Oil Co.'s No. 1 Brydia, SE NE NW Section 25-2-6, location; Fleetborn Oil Co.'s No. 1 P. A. Norris, NE SW Section 25-2-6, location; Fleetborn Oil Co.'s No. 1 Norris Royalty Co., SE NW NE Section 25-2-6, rig on ground; Fleetborn Oil Co.'s No. 1 Lewis, SE SW Section 19-2-7, location; Deep Rock Oil Corp.'s No. 1 D. Hardin, CSL NW SE NE Section 30-2-7, building rig; J. D. Sledge & Jack Lynch's No. 1-A (twin) Thompson, SW NE SW Section 1-1-7, cellar.

Southern Fields

R. A. Godfrey's No. 6 Burge, SW NW SE SE Section 25-7s-5e, Kingston Pool of Marshall County, found the sand at 534-38 feet, total depth, and was completed for 15 bbls. on the pump. His No. 1 Eppler, NW NE NE Section 36-7s-5e, Marshall County, produced 30 bbls. from sand logged at 508-19 feet, total depth. It was completed.

Jones Brothers and others' No. 2-A Toney, CSL NW NE SW Section 27-2s-7w, Stephens County, was dry and abandoned at 1,705 feet.

Skelly Oil Co.'s No. 7 Harmon, NE cor. Section 27-1-5w, Stephens County, was completed for 2 bbls. of oil.

Kansas Wildcats

(Continued from Page 57)

L. H. Wentz' No. 1 Metcalf, SE NE SW Sec. 3-24-7w.
Drlg. 3,311 ft.; H.F.W. in chat.

Sinclair Prairie Oil Co.'s No. 1 Shepard, SE cor. NW Sec. 22-26-9w.
Siliceous lime 4,333-43 ft.; 2,500 ft. W.I.H.; T.D. 4,469 ft.; S.D.

RICE COUNTY

Darby Pet. Co. et al's No. 1 Taylor, NW SE SW Sec. 25-19-8w.
Drlg. 2,650 ft.

Deitrick et al's No. 1 Fitzpatrick, C NE NE Sec. 30-21-8w.
2,330-34 ft., small show oil; T.D. 3,020 ft.; lowering 6-in. csg.

Gypsy Oil Co.'s No. 1 Gibson, SW NW NE Sec. 4-21-10w.
Drlg. 2,669 ft.

Hiwell et al's No. 1 Porter, NE NW Sec. 5-18-7w.
Drlg. 2,620 ft.

Stark & Wells' No. 1 Smith, NW cor. Sec. 30-19-8w.
Location.

Langston et al's No. 1 Markle, NE SW Sec. 1-18-9w.
T.D. 3,435 ft.; S.D.

Robertson et al's No. 1 Johnson, NW cor. SW Sec. 32-19-8w.
Drlg. 2,930 ft.

Yingling et al's No. 1 Maupin, NW SW SW Sec. 1-18-8w.
Drlg. 885 ft.

ROOKS COUNTY

Ashby et al's No. 1 Doughty, C SW SW Sec. 15-8-19w.
Oswald lime 3,186 ft.; pay 3,215-25 ft.; T.D.; swbd. 3 bbls. oil per hr.

RUSH COUNTY

Schiegel & Turner's No. 1 Schmidt, C SW SE Sec. 10-17-16w.
Cellar.

RUSSELL COUNTY

Blair et al's No. 1 Funk, SW NW SE Sec. 14-14-14w.
Location.

Eldorado Ref. Co.'s No. 1 Stratman, SW SE SE Sec. 32-14-11w.
Rig.

Lario et al's No. 1 Neidenthal, NE NE Sec. 33-14-15w.
Oswald lime 3,014 ft.; drlg. 3,167 ft.

SCOTT COUNTY

Atlantic Oil Prod. Co.'s No. 1 Vaniman, C SE NE Sec. 15-20-33w.
Drlg. 1,750 ft.

SEDGWICK COUNTY

Allison & Fitzwilliams et al's No. 1 Struthers, NE SW SW Sec. 34-28-2w.
Cellar.

Gypsy Oil Co. et al"s No. 1 Tammany, NW NE Sec. 4-29-1w.
Rigging up.

Jones, Kirk et al's No. 1 McQuillan, NE NW NE Section 21-29-2w.
Drlg. 2,490 ft.

Lassen et al's No. 1 Wall, C SE SW NE Sec. 4-28-1 (O.W.D.D.).
T.D. 3,100 ft.; C.O.

Shawver et al's No. 1 Schulte, NE NE Sec. 13-28-2w.
Simpson 3,715-73 ft.; show oil and H.F. W.; to P.B. to chat.

Sovereign Oil Co.'s No. 1 Nichols, C NW SE Sec. 20-26-1w.
T.D. 2,986 ft.; dry and abd.

Trees Oil, Derby Oil et al's No. 1 McMinn, NW SW NE Sec. 36-26-1e.
Drlg. 2,910 ft.

SUMNER COUNTY

Morgan & Flynn's No. 1 Mercer, NW NE NW Sec. 36-32-1w.
Drlg. 3,800 ft.

Wentz and Continental's No. 1 Small, NW SW Sec. 5-33-4w.
Drlg. 3,480 ft.

Wentz et al's No. 1 Horsley, CSL SW SW SW Sec. 18-35-1.
Moving in materials.

TREGO COUNTY

Alma Pet. Co. et al's No. 1 Rhodes estate, SW SW Sec. 14-11-23w.
Siliceous lime 3,978 ft.; T.D. 4,222 ft.; H.F.W.; P.B. 3,605 ft.; swb. 30 bbls. oil and 120 bbls. wtr.; drilled to 3,637 ft.; wtr.; P.B. to 3,620 ft.

Mid-Kansas O. & G. Co.'s No. 1 Kline, SW SE Sec. 19-14-24w.
Drlg. 2,790 ft.

WASHINGTON COUNTY

Rose Oil Co. et al's No. 1 Penwell, NE NW SE NE Sec. 16-3-5 (O.W.D.D).
Old T.D. 1,720 ft.; R.U. and S.D

WOODSON COUNTY

Schwartz et al's No. 1 Collins, SW NW NE Sec. 30-23-14.
S.D. 300 ft.

Gulf Coast Wildcats

(Continued from Page 55)

1,950 ft. S and 750 ft. E of westerly NW cor. 500-ac. tract, Thos. Hebermaches Sur.
Drlg. 4,906 ft.

BOLING—FORT BEND COUNTY

Trans-State Oil Co.'s No. 1 Joseph Fojtek, NE cor. of 68.39-acre tract, ½ mile W of new discovery.
Drlg. gumbo 3,200 ft.

THOMPSON—FORT BEND COUNTY

Humble-Gulf's No. 28-A Lockwood & Sharp 379 ft. from S line and 2,872 ft. from E line of "A" lease in J. Rabb Sur.
Flowing into pits; no gauge; completed.

Humble-Gulf's No. 29-A Lockwood & Sharp Location.

Humble-Gulf's No. 30-A Lockwood & Sharp, 4,296 ft. W of E line and 293 ft. S of N line of lease in J. Rabb Sur.
Derrick.

Humble-Gulf's No. 31-A Lockwood & Sharp, 5,170 ft. W of E line and 293 ft. S of N line of lease in J. Rabb Sur.
Derrick.

Humble-Gulf's No. 32-A Lockwood & Sharp, 6,391 ft. W of E line and 293 ft. S of N line of lease and 1,149 ft. W of No. 31-A in J. Rabb Sur.
Derrick.

Humble O. & R. Co-Gulf's No. 33-A Lockwood and Sharp, 150 ft. W of E line and 292 ft. S of N line, J. Rabb Sur., Tract No. 2.
Location.

Humble-Gulf's No. 28-D Lockwood & Sharp, 7,175 ft. from W line and 2,980 ft. from N line of survey.
Location.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 40 Moore.
T.D. 4,148 ft.; flowed 364 bbls. through ½-in. choke.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 4 Broussard & Orme, M. Dunman Sur., 129 ft. SW of No. 3.
Drlg. 6,247 ft. in shale.

Yount Lee Oil Co.'s No. 41 Cade, Fitzsimmons Sur.
D.S. stuck 4,398 ft.

Yount Lee Oil Co.'s No. 40 Cade, 430 ft. NW of No. 2-B, 360 ft. from E line of lease and in line with No. 39 and No. 2-B Fitzsimmons Sur.
D.S. stuck 5,162 ft.

Yount Lee Oil Co.'s No. 22 Smith.
D.S. stuck 5,060 ft.

Yount Lee Oil Co.'s No. 42 Cade, N. Fitzsimmons Sur., half way between Nos. 26 and 32 and 150 ft. E at right angles.
Derrick.

Yount Lee Oil Co.'s No. 1 Mace Stewart, Martin Dunman Sur.
Drlg. cap rock 2,340 ft.

ARRIOLA—HARDIN COUNTY

Republic-Houston's No. 2-X Arriola fee.
Abd. 4,832 ft.

Republic-Houston's No. 3-X Arriola fee, 2,150.7 ft. S of N line of lease and 150 ft. E of W line of Unit No. X or 400 ft. E of Republic's No. 6 Arriola fee in E. Arriola.
Rig up.

Republic-Houston Oil Co.'s No. 8 fee.
Sidetracking stuck D.S.; T.D. 4,420 ft.

SARATOGA—HARDIN COUNTY

Hines Bros.' No. 1 Coswell.
T.D. 2,080 ft.; S.D.

SOUR LAKE—HARDIN COUNTY

Alpha Pet. Co.'s No. 2 Weiss estate, 66 ft. N and 100 ft. W from SE cor. of 5-ac. tract in Lot 35, H. Williams Sur.
Location.

Humble O. & R. Co.'s No. 1 Kirby et al, 140 ft. E W line and 300 ft. S N line of old Gulf 170-ac. tract, S. Jackson Sur.
T.D. 5,765 ft.; P.B. 5,456 ft.; W.O.C.

Steinberger Pet. Co.'s No. 1 Weiss, 150 ft. W of Parr No. 1 and 50 ft. out of SE cor. of Blk. 28, H. B. Williams Sur.
Location.

Texas Co.'s No. 310 fee, 400 ft. N and 60 ft. E of No. 308 fee.
Swbd. and flowed 713 bbls. by heads.

GOOSE CREEK—HARRIS COUNTY

Werring's No. 1 Williams, 180 ft. from SE cor. and 55 ft. NE of Hybush's No. 3, in W. Scott upper league.
Cellar.

Humble O. & R. Co.'s No. 30 Simms-Smith.
Drlg. shale 4,914 ft.

HUMBLE—HARRIS COUNTY

Imperator Oil Co.'s No. 1 N. N. Lee, 400 ft. from E line and 150 ft. from N line of 38-ac. tract in E. Ruhl Sur.
Oil and gas blowout 3,633 ft.; T.D. 3,718 ft.; well killed.

Wilson Oil Co.'s No. 1 Wilson, 400 ft. from E line and 600 ft. from S line of Mary Owens Sur.
Location.

PIERCE JUNCTION—HARRIS COUNTY

Benedum & Trees' No. 1 W. J. Settegast, 3,639 ft. from S line of Sur., and 100 ft. from E line of tract in the J. Kopman Sur.
T.D. 5,905 ft.; cmtd. csg. 5,760 ft.

D. B. Cogswell's No. 1 Herman Hospital, 525 ft. W of NE cor., 200 ft. S of line of lease in J. Kopman Sur. No. A-135.
Derrick.

Hamill & Smith's No. 1 Bender, B.B.R.&C. Sur., Abst. 179, in Jones 25-ac. subd.
T.D. 3,027 ft.; blew out while coring; trying to kill.

Navarro Oil Co.'s No. 2-A Cain, James Hamilton Sur. No. 98.
To work over, 4,947 ft.

Navarro Oil Co.'s No. 2-B Cain, James Hamilton Sur. No. 98.
To work over, 5,292 ft.

Rio Bravo Oil Corp.'s No. 9-A Settegast, 1,575 ft. N line, 350 ft. E line NE cor. "A" lease, J. A. Kopman Sur.
T.D. 4,510 ft.; standing.

Rio Bravo Oil Corp.'s No. 12-A Settegast, 1,410 ft. N line, 650 ft. E line, J. A. Kopman Sur.
Shale 5,933 ft.; S.D.

TOMBALL—HARRIS COUNTY

Amerada-Rycade's No. 1-A Metzler, J. House Sur.
Initial production 525 bbls. per day; tubing pressure 600 lbs.; csg. pressure 1,600 lbs.

Amerada-Stanolind's No. 5 Otto-Rudel, 500 ft. E line 50-ac. lease in J. House Sur.
Rigging up.

Continental Oil Co.'s No. 2 Petrich, 1,900 ft. from S line and 157 ft. from E line of 50-acre tract.
Drlg. shale 4,730 ft.

Humble O. & R. Co.'s No. 2 Erwin.
Waiting on cmt. 5,588 ft.

Humble Oil & Ref. Co.'s No. 1 Christine Holderreith, 377 ft. from N line and 466 ft. from E line of most northerly NE cor. of 85-acre tract in J. House Sur.
Drlg. shale 2,343 ft.

Humble O. & R. Co.'s No. 1 E. B. Johlke, 466 ft. N of S line, 555 ft. E of W line, Joseph House Sur.
Drlg. 2,860 ft.

Humble O. & R. Co.'s No. 1 John Holderreith, 500 ft. S line, 495 ft. E and W lines of 112.5-ac. lease, C. W. Pillott Sur. No. 632.
Derrick.

Humble O. & R. Co.'s No. 1 Otis F. Laird, 300 ft. from S line and 473 ft. from W line of 24-acre lease in C. N. Pillot Sur.
Drlg. shale 961 ft.

Humble O. & R. Co.'s No. 2 Krahn, Wm. Hurd Sur. 377.
Drlg. shale 4,480 ft.

Humble-Magnolia's No. 1 Krug, 600 ft. N and 187 ft. E from SW cor. of J. F. W. Kobs, 20.6-ac. tract in J. H. Edwards Sur.
Location.

Humble-Magnolia's No. 2 Krug, 466 ft. from E line of lease and 800 ft. S of S line of Sherer 112-ac. tract in J. H. Edwards Sur.
Location.

Humble O. & R. Co.'s No. 3 Rudel-Oster, J. House Sur.
Coring shale and lime 5,376 ft.

Humble O. & R. Co.'s No. 1 E. B. Johlke, Joseph House Sur.
Rigging up.

Texas Co.'s No. 3 Hirsch, 466 ft. W of E line and 100 ft. N of S line of lease
Flowed 148 bbls. in 12 hrs. through ½-in. choke; T.D. 5,594 ft.

VANDERBILT—JACKSON COUNTY

Encio Gas Co.'s No. 1 J. H. Drummond, 330 ft. out of most easterly NE cor. of Drummond 499-ac. tract.
T.D. 6,012 ft.; P.B. to 5,544 ft.

Encio Gas Co.'s No. 1 Seidel & Simmons, 150 ft. from SW line or 300 ft. NE at R/A from No. 1 Toney, in Raymond Musquiz Sur.
T.D. 6,009 ft.; D.S. test 5,800-12 ft.; S.W.; P.B. to 5,240 ft.

Imperator Oil Co.'s No. 1 Dutton, S C of Lot No. 11, Blk. 25, 450 ft. S of R.R. and 1,350 ft. W line of townsite, Ray Musquiz Sur.
Rigged up and S.D.

Phillips Pet. Co.'s No. 1 State Realty, 1,000 ft. SW and 466 ft. NW of most easterly E cor. of Vanderbilt townsite, Blk. 95, R. Musquiz Sur.
Drlg. 3,670 ft.

Turman Oil Co.'s No. 1 T. H. Miller, 150 ft. each way out of E 50-ac. of Miller 100-ac. tract in Ray Musquiz Sur.
Location.

FANNETTE—JEFFERSON COUNTY

Gulf Prod. Co.'s No. 3 Junker, 700 ft. W, 350 ft. S of NE cor. of 260-ac. tract, W. H. Smith league.
Drlg. brittle shale 5,285 ft.

Gulf Prod. Co.'s No. 15 Thomas, 200 ft. W of Gulf's No. 7 Burrell.
Derrick.

CLEVELAND—LIBERTY COUNTY

Gulf Prod. Co.'s No. 5-C Kirby, 944 ft. W, 500 ft. S of No. 4-C in the J. Pleasant Sur.
Coring 5,334 ft.

ESPERSON—LIBERTY COUNTY

General Crude's No. 13 Moore's Bluff, 150 ft. W of E line and 2,100 ft. S of N line of lease and 1,000 ft. N of No. 12.
No report.

General Crude Oil Co.'s No. 9 Davis, 1,200 ft. each way from S and E lines of lease in D. Kokernut Sur.
No report.

HANKAMER—LIBERTY COUNTY

George Devore et al's No. 1 S. E. Exell, 175 ft. S of Gulf's No. 1 and 165 ft. from E line of 175-ac. lease in Levi Barrow Sur.
No report.

HULL—LIBERTY COUNTY

Flynn's No. 1 Flynn, J. Devore Sur.
T.D. 1,517 ft.; S.D.

Gulf Prod. Co.'s No. 104 Phoenix, 3,479 ft. from W line and 1,115 ft. from S line of 300-ac. tract in J. Devore Sur.
Drlg. shale 5,094 ft.

G. R. Brown and S. F. Bashara's No. 1 David Hannah, Jesse Devore league, 100 ft. S line, 150 ft. E line, 42-ac. Gulf tract.
Derrick.

Gulf Prod. Co.'s No. 105 Phoenix, 1,154 ft. N, 200 ft. W of SE cor. of 300-acre tract in Jesse Devore Sur.
Rig up.

Republic Prod. Co.'s No. 153 Dolbear, 400 ft. N and 45 deg E. from No. 151, in the J. Devore Sur.
No report.

Sun Oil Co.'s No. 9-A Carr, 338 ft. from N line and 307 ft. from W line of lease in J. Devore Sur.
Drlg. shale and lime 5,028 ft.

Texas Co.'s No. 9 Hannah, 250 ft. N and 200 ft. W of No. 5 Hannah.
Drlg. shale 4,170 ft.

LIBERTY COUNTY

Texas Co.'s No. 22 Stalti, 250 ft. S and 50 ft. E of No. 14.
Set 10-in. csg. 1,062 ft.

BUCKEYE—MATAGORDA COUNTY

United North & South Dev. Co.'s No. 1 Unit 4, Buckeye farm, J. C. Keller league, 214 ft. N line and 202 ft. E line of lease.
T.D. 7,880 ft.; cutting and pulling screen.

United North & South Dev. Co.'s No. 1 Unit No. 58, 250 ft. N and 200 ft. W of SE cor. of Unit No. 58.
Drlg. shale, 5,606 ft.

MARKHAM—MATAGORDA COUNTY

Hawkins Oil Co.'s No. 1 Hawks fee, 1,350 ft from N line and 1,650 ft. from E line of 20-ac. lease.
T.D. 600 ft.; derrick down.

Powers Prod. Co.'s No. 4 Myers, in line with wells Nos. 1 and 2, being 250 ft. E of No. 2.
Derrick down.

Rio Bravo Oil Co.'s No. 1 Sisk, 550 ft. N, 650 ft. W SE cor. of R. J. Sisk's 155-ac. tract in Lot 2, Wm. Haddon league.
Drlg. shale and lime 3,480 ft.

VAN VLECK—MATAGORDA COUNTY

Skelly Oil Co.'s No. 2 F. G. Cobb, 1,185 ft. E of W line and 2,615 ft. N of S line of F. G. Cobb lease in Marie Cummings Sur.
Drlg. gumbo 3,070 ft.

CONROE—MONTGOMERY COUNTY

Alpha Pet. Co.'s No. 1 Hensley, 466 ft. from N and W lines of 25-acre lease in A. Steele Sur.
Comp. 50 bbls. per hr.; ½-in. choke; 5,095 ft.

Cameron & Cameron's No. 1 Dudley, S offset to Strake's No. 1 Hammond.
Moving in.

Humble O. & R. Co.'s No. 6 B. D. Griffin.
Coring 5,079 ft.; show oil.

Humble O. & R. Co.'s No. 42 Madeley.
Drlg. sand and shale 4,841 ft.

Strake Oil Co.'s No. 1-B Dean, offset to Tide Water-Strake No. 8 Dean.
T.D. 5,095 ft.; P.B. to 4,994 ft.; W.O.C.

Sun Oil Co.'s No. 20 Keystone Mills, 1,465 ft. E and W line and 466 ft. N and S line of lease.
Drlg. sand and shale 5,075 ft.

Sun Oil Co.'s No. 2 South Texas, 943 ft. N of No. 1 and in center of lease E and W in T.&N.O. Sur. No. 5.
T.D. 5,153 ft.; tested S.W.; abd.

ORANGE—ORANGE COUNTY

Trio Oil Co.'s No. 1 D. S. Comier, 69 ft. W of E line and 39 ft. S of N line of 6.83-ac. tract in W. M. Dyson Sur.
Prepare to spud.

PORT NECHES—ORANGE COUNTY

Texas Co.'s No. 8 Kuhn, 1,320 ft. N and 250 ft. E of SE cor. of Mary E. Hall Sur. No. 2 in T. J. Notgrass Sur.
Set 20-in. csg. at 112 ft.

Texas Co.'s No. 9 Kuhn, 990 ft. N and W of SE cor. of Mary E. Hall Sur. No. 2.
Moving in.

Texas Co.'s No. 2-B Polk, 695 ft. N, 150 ft. S of NE cor. of N. Jacob Beaumont Sur.
Cmtd. 9⅝-in. csg. at 5,498 ft.

LIVINGSTON—POLK COUNTY

T. D. Humphries' No. 1 J. C. Whitferth, Block H.
Derrick.

Sun Oil Co.'s No. 1 Pratt, A. Viesca Sur., 330 ft. N line and 330 ft. E line of lease.
Rig.

J. Z. Werby et al's No. 2 Dick & Failing, 330 ft. from SW line of 160-ac. tract, A. Viesca Sur.
T.D. 4,137 ft.; P.B. to 2,200 ft. to straighten hole.

GRETA—REFUGIO COUNTY

Atlantic and Stanolind's No. 5 G. O'Brien, 2,720 ft. N of most easterly SE cor. of 400-acre lease, 466 ft. W of E line in Winfield Sur.
Drlg. 2,903 ft. in shale.

Circle W Oil Co.'s No. 11 J. M. O'Brien, Crunk Sur.
Location.

Floboots Oil Co.'s No. 3-E O'Brien, 466 ft. from S line and 503 ft. from E line of E. H. Winfield Sur., Block 28.
Reaming 4,400 ft.

Floboots Oil Co.'s No. 4-E O'Brien, 466 ft. from S line and 503 ft. from E line of Winfield Sur., Block No. 28.
Sand; T.D. 4,393 ft.; cmtd. 7-in. csg. 4,362 ft.

Hewitt & Daugherty's No. 9 M. F. Lambert, 466 ft. from N line and midway between E and W lines of Blk. 16, Hardwick Sur.
Running csg. 5,491 ft.

Hewitt & Daugherty's No. 10 M. F. Lambert, midway between E and W lines of Hardwick Sur., 466 ft. S line, Blk. 343.38-ac. tract.
Set csg. at 1,200 ft.

Humble Oil & Ref. Co.'s No. 6 Fannie Heard, 1,499 ft. N line and 503 ft. W line of 327-acre tract in Ximines Sur.
Drlg. sandy shale 4,165 ft.

Humble O. & R. Co.'s No. 7 Fannie Heard, Ximines Sur., 2,438 ft. S of most northerly N line, 2,472 ft. E line 327.14-ac. tract.
Cmtd. csg. 1,166 ft.

Stanolind O. & G. Co.'s No. 3 J. M. O'Brien, Peoples Sur.
Moving in rig.

United Prod. Co.'s No. 8 Wilson Heard, 1,079 ft. SE from most northern point along NE boundary line of lease, thence 330 ft. SW at right angles.
Spudded.

United Prod. Co.'s No. 8 Lambert.
Drlg. shale 6,187 ft.

United Prod. Co.'s No. 8 J. A. Lambert, 855 ft. N of NW cor. of W. Heard tract and 150 ft. W of tract line.
T.D. 4,378 ft.; showing cut oil.

United Prod. Co.'s No. 9 Lambert, 466 ft. S line and 507 ft. E line of Blk. 17, H.& D. Subd. of Hardwick Sur., Abst. 159.
T.D. 5,170 ft.; cmtd. 5 2/16-in. csg.

REFUGIO—REFUGIO COUNTY

Houston Oil Co.'s No. 15 Heard, 660 ft. SE of No. 14 and 330 ft. NE of S line of lease.
Drlg. 4,670 ft.

Houston Oil Co.'s No. 16 Roarke, 600 ft. NW of No. 15, Mullins Sur.
Set csg. 920 ft.

Houston Oil Co.'s No. 6 M. H. Ryals, 1,050 ft. from N line and center of E and W lines of lease.
Sticky shale 5,110 ft.; P.B. to 3,550 ft.

United Prod. Co.'s No. 8 Wilson Heard, 1,079 ft. SE from most northern point along NE boundary line of lease, thence 330 ft. SW at R/A.
Cmtd. csg. 944 ft.

United Prod. Co.'s No. 8 J. A. Lambert, 855 ft. N of NW cor. of W. Heard tract and 150 ft. W of tract line, L. M. Rogers Sur.
Drlg. shale 6,187 ft.

United Prod. Co.'s No. 9 Shelly Ryals, Refugio Town tract, 1,475 ft. W of E line, 200 ft. N of S line of tract.
Drlg. shale 6,315 ft.

COLETA CREEK—VICTORIA COUNTY

American Liberty Oil Co.'s No. 1 Gaugler, SE cor. of Gaugler 268-ac. tract and just N of Petrol Corp.'s No. 1 Machalec.
Spudded.

Rupert Cox's No. 1 John Zimmer, 2,185 ft. NE from SW cor. along NW line and 330 ft. SE at R/A, R. Manchola League.
Rig up.

Albert Plummer's No. 1 Zimmer, 330 ft. NE and SE lines of lease in Manchola Sur.
Coring sand and shale 2,296 ft.

Stoneleigh O. & G. Co.'s No. 1-A Zimmer.
Derrick.

KEERAN—VICTORIA COUNTY

Gulf Prod. Co.'s No. 6 Keeran, begin at intersection of R.R. and SW line of survey, thence NE along R.R. 6,257 ft., thence NW at R/A 2,529 ft. in M. DeLeon Sur. Sand 5,595 ft.; drlg. shale 5,607 ft.

McFADDIN-O'CONNOR DISTRICTS—VICTORIA AND REFUGIO COUNTIES

Humble O. & R. Co.'s No. 1 McFadden Est., 2,000 ft. S, 15 deg. W of Lion O. & R. Co.'s No. 1 McFadden, in C. O. Edwards Sur. Drlg. sand 6,040 ft.

Humble O. & R. Co.'s No. 15 O'Connor, N 60 deg. W 933 ft. of No. 4 in Keeting Sur. Spudded.

Texas Co.'s No. 2 McFaddin, 9,150 ft. S and 200 ft. at R/A out of NW cor. of C. M. B. Hoyt Sur.
T.D. 6,085 ft.; fishing drill pipe.

CLAY CREEK—WASHINGTON COUNTY

Sun Oil Co.'s No. 3 Mrs. A. Draeger, 1,300 ft. E of W line and 300 ft. N of S line of 205-ac. tract in J. F. Perry Sur.
T.D. 1,665 ft.; reaming to set csg.

LOUISE—WHARTON COUNTY

Pure Oil Co.'s No. 1 Adams, T. W. Heard Sur., Sec. 26, Abst. 465, 471 ft. NW cor., 467 ft. from SW line out of most westerly NW cor. of section.
Rig up.

Pure Oil Co.'s No. 2 Chas. T. Kountze, 2,310 ft. at R/A from NW line and 990 ft. at R/A from SW line of 280-ac. tract in Morris & Cummings Sur. No. 19.
Cmtd. 9⅝-in. csg. 5,120 ft.; T.D. 5,218 ft.; I.P. 880 bbls. and 2,400,000 ft. of gas.

Pure Oil Co.'s No. 2 Stewart, Morris & Cummings Sur., Sec. 25, 990 ft. out of SW cor. of 160 acres.
T.D. 8,235 ft.; P.B. to 7,835 ft.; preparing to sidetrack.

SOUTH LOUISIANA FIELDS

BLACK BAYOU—CAMERON PARISH

Brownie Babbette Oil Co.'s No. 1 R. A. Moore, 663 ft. W, 50 ft. S of NE cor. of E½ of SE Sec. 18-12s-12w.
Drlg. shale 6,290 ft.

Shell Pet. Corp.'s No. 3 State.
T.D. 5,584 ft.; washing and reaming 5,035 ft.

BAY ST. ELAINE—TERREBONNE PARISH

Texas Co.'s No. 8 State Bay St. Elaine.
Rigging up.

BOSCO—ACADIA AND ST. LANDRY PARISHES

Oswego Oil Co.'s No. 1 Joseph Mouton.
T.D. 1,395 ft.; S.D.

Superior Oil Prod. Co.'s No. 1 Mrs. Estelle Comeaux and others' 675.6 ft. W and 511.4 ft. S of NE cor. of Sec. 34-8s-3e.
Drlg. sand and shale 6,332 ft.

Superior Oil Producing Co.'s No. 1 Sidney Fail, 542.9 ft. W and 511.4 ft. N of SE cor. Sec. 27-8s-3e.
Drlg. sandy shale 5,455 ft.

Superior Oil Prod. Co.'s No. 1 Eddie Prejean (Alex Forrestier), 2,021.3 ft. W and 439.4 ft. S of NE cor. of Sec. 34-8s-3e.
Drlg. sand 6,453 ft.

Superior Oil Co.'s No. 2 Hermances, 1,175 ft. S, 597 ft. E of NW cor. Sec. 34-8s-3e.
Rigging.

Superior Oil Prod. Co.'s No. 1 Adras Guilbeau, 492.6 ft. E and 508.2 ft. S from NW cor. of SW Sec. 26-8s-3e.
Rig up.

Superior Oil Prod. Co.'s No. 1 Walter V. Larcade, 462.4 ft. N and 502.2 ft. S of NW cor. of Sec. 35-8s-3e.
Spudded 195 ft.

Superior Oil Prod. Co.'s No. 1 Euclide LeBlanc, 1,873 ft. S and 673.2 ft. W of NE cor of Sec. 33-8s-3e.
Derrick.

Superior Oil Prod. Cor.'s No. 1 Lucien Lavergne, 596 ft. E and 330 ft. N of SW cor. of Sec. 27-8s-3e.
Moving in material.

Superior Oil Prod. Co.'s No. 1 Moise Lavergne, 269.7 ft. W and 93 ft. N of SE cor. of Sec. 28-8s-3e.
Moving in material.

Superior Oil Prod. Co.'s No. 1 Auguste Martinez, 2,510.6 ft. S and 1,057.3 ft. W of NE cor. of Sec. 35-8s-3e.
Top large Discarbia 7,872 ft.; drlg. sand and shale 8,359 ft.

Superior Oil Co.'s No. 1 Locanstie Richard, 2,878 ft. S and 465 ft. W of NE cor. of Sec. 34-8s-3e.
Plowed 749 bbls. first 16 hrs.; 13/64-in. choke, 8,950 ft.; sand.

Superior Oil Prod. Co.'s No. 1 Leonard Savoie, 814 ft. W and 653 ft. N of SE cor Sec. 26-8s-3e.
Drlg. sand and shale 7,364 ft.

Superior Oil Co.'s No. 1 Marcellus Savoie 2,201 ft. S and 761 ft. W of NE cor. of Sec. 27-8s-3e.
Drlg. sand and shale 8,150 ft.

CAILLOU ISLAND—TERREBONNE PAR.

Texas Co.'s No. 12 State Caillou Island 2,420 ft. E and 73 ft. S of NW cor. of Sec 20-23s-26e.
T.D. 4,769 ft.; P.B. to 1,600 ft.; drilled out 1,432 ft.

CAMERON MEADOWS—CAMERON PAR.

Burton-Sutton Oil Co.'s No. 4 School Land 2,891 ft. W and 150 N of SE cor. of Sec 15-4s-13w.
Derrick.

Texas Co.'s No. 1 Miami Corp.
Drlg. water sand 5,279 ft.

EDGERLY—CALCASIEU PARISH

Union Sulphur Co.'s No. 2 Hunter, 1,366 ft. N 425 ft. W of SE cor. SW Sec. 31-9s-11w.
Drlg. shale 4,816 ft.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 6, Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
Sand 3,565-70 ft.; reaming to set csg.

HACKBERRY—CAMERON PARISH

Calcasieu Oil Co.'s No. 2 Hanssen, 400 ft. W and 300 ft. S of No. 1 in Sec. 14-12s-10w
T.D. 6,462 ft.; sidetracked 4,175 ft.; no report.

Gulf Ref. Co.'s No. 15-A M. P. Irwin, 368 ft. N and 341 ft. W of the SE cor. of Sec. 13-12-10.
Spudded.

Wilfred LaHay's No. 1 Roux, Sec. 36-12s-10w.
Shale 3,986 feet.; S. D.

Texas Co.'s No. 13-B State, 500 ft. SE of No. 10-B or 1,360 ft. E and 149 ft. S of NE cor. of Sec. 13-12s-10w
Drlg. shale and lime 4,833 ft.

Union Sulphur Co.'s No. 1 Barnes est., 1,720 ft. N line, 320 ft. E of SW cor. Sec. 13-12s-10w.
Sand 7,491-7,529 ft.; old T.D. 7,986 ft.; cmtd. csg. 7,491 ft.

Union Sulphur Co.'s No. 9 Humble, 300 ft. E and slightly N of No. 1 well, or 630 ft. N and 270 ft. E of the SW cor. of Sec. 13-12s-10w.
T.D. 6,000 ft., salt; P.B. 5,380 ft.; sidetracked and drlg. rock 5,910 ft.

Yount Yee Oil Co.'s No. 1-A Gulf Land, 2,000 ft. S and 50 ft. E of the NW cor. of Sec. 32-12-10.
Derrick.

Yount Lee Oil Co.'s No. 2-A Gulf Land, 1,100 ft. S and 50 ft. E of the NW cor. of Sec. 31-12-10.
Drlg. 986 ft.

Yount Lee Oil Co.'s No. 15-A Gulf Land, 1,160 ft. S and 715 ft. W of the NE cor. of the SW of Section 16-12-10.
Derrick.

NEW IBERIA—IBERIA PARISH

Harrison & Abercrombie's No. 1 J. E. Schuring, 3,480 ft. S 75 deg. 25 min. west along section line from E cor. of fractional Sec. 44-12s-8e, and thence 1,121 ft. N 11 deg. 35 min. W, or at R/A to said line in Sec. 56-12s-7e.
Derrick.

O. D. Spell's No. 1 Gladiator, 25 ft. NW of No. 1 in A. B. Bernard Sur., Sec. 54.
T.D. 3,870 ft.; well blew out and bridged over at 900 ft.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Barnsdall Oil Co.'s No. 2 Caffal.
Initial production 1,500 bbls. per day through 16/64-in. tubing choke; comp.

Barnsdall Oil Co.'s No. 6 Fontenot, 330 ft. from N and W lines of lease in Sec. 7-9s-6w.
I.P. 1,500 bbls. per day; T.D. 7,018 ft.

Magnolia Pet. Co.'s No. 9 Wait, 330 ft. E and S of the C of the lease, and in N of No. 8 Wait.
Rig.

Shell Pet. Corp.'s No. 8 Fontenot, 330 ft. out of NE cor. of lease.
Drlg. plug 6,960 ft.

Shell Pet. Corp.'s No. 8 Heyd
Flowed 348 bbls. through 15/64-in. tubing choke; T.D. 6,707 ft.

Shell Pet. Corp.'s No. 2 C. L. Johnson, 330 ft. out of SE cor. of 80-ac. lease, and offset to Magnolia's No. 6 R. T. Wait.
Sand and shale 5,472 ft.

Shell Pet. Corp.'s No. 1 Scott, 330 ft. out of NW cor. of lease.
Sand showing oil; T.D. 6,448 ft.

Shell Pet. Corp.'s No. 5 Stratford.
Drlg. 2,812 ft.; shale.

JENNINGS—ACADIA PARISH

Yount Lee Oil Co.'s No. 14 Housierre-Latrielle, 260 ft. N of No. 13. Sec. 47-9s-2w.
Drlg. sand and shale 3,900 ft.

LAKE BARRE—TERREBONNE PARISH

Texas Co.'s No. 10 L.L.&E., 4,543 ft. S. 601 ft. W of NW cor. Sec. 30-21s-29e.
T.D. 3,690 ft.; S.D.

Texas Co.'s No. 11 L.L.&E., Sec. 30-21s-29e
T.D. 3,809 ft.; P.B. to 3,180 ft.

Texas Co.'s No. 12 L.L.&E.
Derrick.

Texas Co.'s No. 26 Lake Barre, 150 ft. N from No. 23, Sec. 30-21s-29e.
Drlg. salt 3,710 ft.; top sand 1,360 ft.

LAKE HERMITAGE—PLAQUEMINES PARISH

Humble O. & R. Co.'s No. 2 LaFourche Basin Levee Dist.
D.S. stuck 3,252 ft.

LAKE PELTO—TERREBONNE PARISH

Texas Co.'s No. 11 Lake Pelto, 1,000 ft. SW of No. 5.
T.D. 5,300 ft.; P.B. to 5,046 ft.; fishing.

Whitstone O. & G. Co.'s No. 1 Buckley, 300 ft. S and E of NW cor. SW SW Sec. 35-19s-16e.
Drlg. 2,640 ft.

LAKE WASHINGTON—PLAQUEMINES PARISH

Humble O. & R. Co.'s No. 23 Cockrell-Moran, 650 ft. N and 21 deg. 30 min. E of No. 2 in Twp. 20s-26e.
Dredging canal to location.

Humble O. & R. Co.'s No. 24 Cockrell-Moran, 400 ft. E, 100 ft. S of Freeport Sulphur's No. 11 Cockrell-Moran, SE of Sec. 24-20s-26e.
Drlg. sand 1,090 ft.

LEESVILLE—LAFOURCHE PARISH

Robert Bowles' No. 1 Crosby.
T.D. 4,525 ft.; P.B. 1,800 ft. and drilled to 3,880 ft.; D.S. stuck.

Robert Bowles' No. 2 Crosby.
Drlg. 1,450 ft.

Emerald Pet. Co.'s No. 7 State of Louisiana.
Derrick.

Gulf Prod. Co.'s No. 8 Bernard, 568 ft. E along S line of 5.08-ac. tract from SW cor. and 446 ft. N at right angles, Sec. 26-21s-22e.
Derrick.

Emerald Pet. Co.'s No. 8 State of La., 456 ft. N of No. 1.
Drlg. 4,441 ft.

Emerald Pet. Co.'s No. 9 State of La., 600 ft. S of No. 1.
Drlg. 800 ft.

Emerald Pet. Co.'s No. 10 State, west bank, 300 ft. S of well No. 1.
Location.

Emerald Pet. Co.'s No. 11 State, east bank, 227 ft. N of well No. 1.
Location.

Emerald Pet. Co.'s No. 12 State, east bank, 250 ft. S of well No. 1.
Location.

Gulf Ref. Co.'s No. 7 Bernard, 650 ft. E along S line of 5.08-acre tract and 650 ft. from SW cor. of tract and 42 ft. N at right angles.
Drlg. 2,721 ft.; shale and lime.

Frank L. Hill's No. 1 Bernard, 1,422 ft. N and 808 ft. E of SW cor. Sec. 26-21s-22e
Lost swab in hole, 3,660 ft.

Lincoln Oil Co.'s No. 1 Constantine.
T.D. 5,106 ft.; P.B. to 900 ft.; drlg. 2,391 ft.

Texas Co.'s No. 19 L.L.&E., Sec. 27-21s-22e
T.D. 4,488 ft.; P.B. to 2,545 ft.; drilled to 3,248 ft.

Texas Co.'s No. 20 L.L.&E., Sec. 27-21s-22e
Rigging up.

Texas Co.'s No. 26 L.L.&E.
Sand 4,276 ft.; set csg.

LOCKPORT—CALCASIEU PARISH

Magnolia Pet. Co.'s No. 12 Bordages, 966 ft. W and 93 ft. N of SE cor. N¼ NE Sec. 8-10s-19w.
Drlg. 3,007 ft.

George W. Strake's No. 1 Moss, 575 ft. S and 70 ft. W of NE cor. of SW NW Sec. 5-10s-9w.
T.D. 5,914 ft.; fishing stuck drill stem.

Union Sulphur Co.'s No. 1 Farquaher, 200 ft. S and W lines, NE cor. SW SE Sec. 36-12s-10w, 2-ac. tract.
No report.

PORT BARRE—ST. LANDRY PARISH

Gulf Ref. Co.'s No. 6 Wilson-Cochran.
T.D. 3,268 ft.; comp. 1,500 bbls. ⅝-in. choke.

Phillips Pet. Co.'s No. 1 Sibille, 3,063 ft. S from R.R. along W line of Sibille Co., Inc., 180-acre tract and 50 ft. E in Sec. 7-6s-6e.
Spudded.

ROANOKE—JEFFERSON DAVIS PARISH

Humble O. & R. Co.'s No. 3 Devilbiss, 1,399 ft. W, 466 ft. S of NE cor. Sec. 14-9s-4w.
Drlg. shale 8,398 ft.

Humble O. & R. Co.'s No. 1-B Devilbiss.
Rigging up.

Humble O. & R. Co.'s No. 1 Martin Kratzer, 400 ft. out of SE cor. 120-ac. tract, Sec. 14-9s-4w.
Drlg. sandy shale 7,798 ft.

Shell Pet. Corp.'s No. 1 Jarnigan, 330 ft. E, 660 ft. S, NW cor. Sec. 12-9s-4w.
Sandy shale 8,168 ft.; 9⅝-in. csg. 7,465 ft.; drlg. plug.

SORRENTO—ASCENSION PARISH

Union Sulphur Co.'s No. 26 United Land
T.D. 5,752 ft.; top salt 5,745 ft.; P.B. to 4,800 ft.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 794 fee.
Rigging up to pump 5,407 ft.

Union Sulphur Co.'s No. 795 fee.
Coring sticky shale 4,232 ft.

Union Sulphur Co.'s No. 800 fee, 2,296 ft. N and 311 ft. W of C of Sec. 29-9s-10w.
Coring 2,244 ft.

Union Sulphur Co.'s No. 801 fee, 1,862 ft. N, 670 ft. E of C of Sec. 29-9s-10w.
Broken rock 1,724 ft.

Union Sulphur Co.'s No. 802 fee, 908 ft. N, 1,340 ft. E of C of Sec. 29-9s-10w.
Rigging up.

Union Sulphur Co.'s No. 805 fee.
Drlg. sand and gravel 960 ft.

Union Sulphur Co.'s No. 2 Kelly, 1,345 ft. S, 198 ft. W of the NE cor. of Sec. 30-9s-10w.
Set 12½-in. casing at 1,203 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 12 Yount Lee fee, 800 ft. S of No. 11, in line with Nos. 9 and 10, Sec. 12-13-3w.
T.D. 7,439 ft.; temp. S.D.

VINTON—CALCASIEU PARISH

Gulf Ref. Co.'s No. 68 G.N.G.
Moving in rig to work over 3,069 ft.

Tri-Oil Co.'s No. 1 Matilda Gray, 38 ft. W, 35 ft. N of SE cor. NE SW NE Sec. 33-9s-12w.
Comp. as dry gas well; T.D. 3,630 ft.

Vinton Oil Co.'s No. 1 J. G. Gray, 330 ft. from N line and 545 ft. from E line of SE NE Sec. 4-11s-12w.
Derrick.

Vinton Pet. Co.'s No. 2 Mathilda Gray, 100 ft. N of No. 1 and in Sec. 33-10s-12w. (W.O.); T.D. 3,325 ft.; W.O.C.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 9 Wilburn, 300 ft. E of No. 7.
Reaming 6,053 ft.

MISCELLANEOUS WILDCATS

TEXAS

ANGELINA COUNTY

Thayer et al's No. 1 Dearmond, J. T. Peavy Sur., 2¼ miles SE of Zavalla.
Hard lime 1,915 ft.; T.D.

AUSTIN COUNTY

I.T.I.O. and Johnson Bros.' No. 1 August Wrangler, 450 ft. out of N cor. of Wrangler 132-ac. tract in Adam Kuykendall Sur.
Coring sandy shale 4,035 ft.

BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 1 Houston Farm Dev. Co., 1,414 ft. N, 316 ft. W of SE cor. of L. Bachelder Sur.
Drlg. 5,763 ft. in sand.

Jack Clark tr.'s No. 1 J. M. Spear, 150 ft. from N line and 150 ft. from W line of Lot 4, in Pinckney Sur.
T.D. 5,009 ft.; sand and lime; S.D.

Gillock Pet. Co.'s No. 1 Frank Trukza, 200 ft. from S and 1,000 ft. from E lines of 75-ac. tract, Sec. 7, H.T.&B.R.R. Sur.
Drlg. 4,026 ft.

Holt et al's No. 1 Griffith, J. B. Bailey Sur.
T.D. 4,200 ft.; waiting orders.

Turnbull & Irwin's No. 1 Braden, H.T.&B. Sur., SE of Sec. 50, 4 miles SE of Juliff.
Moving in rig.

BRAZOS COUNTY

Buck Wallace's No. 1 Broach, 1,000 ft. from S line, 400 ft. from W line of 251-ac. tract in G. W. Singleton Sur.
T.D. 369 ft.; S.D.

BURLESON COUNTY

Southern Seaboard Oil Co.'s No. 1 J. H. Coulter, 9,400 ft. from SW line and 2,200 ft. from NW line of 1,176-ac. tract in SE cor. of county in A. Kennon Sur.
Sandy lime 4,460 ft.

CALHOUN COUNTY

Continental Oil Co.'s No. 1 American Nat. Realty Co., C of NE of Sec. 6, Blk. C.
T.D. 5,878 ft.; P.B. to 5,400 ft.

Herman Heep's No. 3 Welder.
Drlg. sandy shale 2,931 ft.

Mills Bennett Prod. Co.'s No. 1 R. Adams, C of NW line of Sec. 45.
Drlg. lime 4,374 ft.

COLORADO COUNTY

Coyle-Concord Oil Co.'s No. 1 Nelson, 1,320 ft. SE of NW cor. of Sec., 2,200 ft. SW at right angles in I.&G.N. Sur.
T.D. 6,194 ft.; to take Schlumberger test.

Quintana Pet. Co.'s No. 1 M. A. Olmsted, 457 ft. N 66 deg. 20 ft. E along S line from SW cor. of 139-ac. tract and 425 ft. NW at right angles in M. Baton Sur.
Coring shale 4,720 ft.

FAYETTE COUNTY

Colorado Oil Co.'s No. 1 Anders.
T.D. 2,320 ft.; S.D.

Magnolia Pet. Co.'s No. 1 Max Steinmann, 330 ft. N line and E line of 57.37-ac. tract, or 4,100 ft. S line, 2,000 ft. E line of Ygnacia Almansur Sur., 1¼ miles E of Schulenberg.
Rig.

FORT BEND COUNTY

Humble O. & R. Co.'s No. 1 Mrs. Anna Hackstedt, 466 ft. at right angles from SE and SW lines 246.9-acre tract in Robert Hodges Sur.
Spudded.

W. A. Shafer et al's No. 1 V. B. Bortash, 693 ft. SW of NE line and 1,003 ft. NW of SE line of Sec. 52, H.&T.C. Sur.
T.D. 300 ft.; S.D.

Vico Oil Co.'s No. 1 H. R. Darst, 5,690 ft. N of S line and 685 ft. W of E line of E. Powell Sur.
Rig.

Wilks et al's No. 1 Norris, 300 ft. W and 1,352 ft. S of N cor. of 525-ac. tract (6 miles S of Needville).
Rigged up and S.D.

GALVESTON COUNTY

H. E. Sedberry, trustee's No. 1 Thomas Shaw (200 acres), 150 ft. NW line, 165 ft. NE line, Lot 66, Sec. 7, Hall & Jones, Galveston Island.
Rig up.

Humble O. & R. Co.'s No. 1-B Stewart, 415 ft. S of Dickinson Bayou, 460 ft. E of E line of Blk. 16, Beatty Subd., John Sellers Sur.
Rig up.

Pure Oil Co.'s No. 1 J. W. Shelor (231.2 acres), 2,760 ft. S of Dickinson-San Leon highway and midway E and W lines of lease, B.B.B.&C. Sur.
Rig.

GRIMES COUNTY

Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 150-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
Laying water line; T.D. 880 ft.

W. D. Roan et al's No. 1 D. C. Kelly, 1,833 ft. from N line and 168 ft. from E line of U. Sanders Sur., near Carlos.
Drlg. 2,360 ft.

J. H. Woodward et al's No. 1 O. A. Hamilton, center of Hamilton 95.5-ac. tract 8 of Richards in the O. Hill Sur.
Coring 3,290 ft.; no report.

HARDIN COUNTY

Wilcox O. & G. Co.'s No. 1 Sternberger, 1,331 ft. N of S line and 1,311 ft. W of E line of C. Dorsey Sur. No. 1.
Prepare to start up; T.D. 6,014 ft.

HARRIS COUNTY

C. C. Foster and others' No. 1 H. K. Johnson, 2,000 ft. from S line and center of E and W lines of G.C.&S.F. Sur.
Spud and drlg. water well.

General Crude Oil Co.'s No. 1 Rorick est., 5,006 ft. S of N line of survey and 1,500 ft. W of E line of 1,436-ac. tract in John C. Ogburn Sur.
Top Cockfield 6,250 ft.; drlg. 6,460 ft. with odor from 6,431-38 ft.

Imperator Oil Co.'s No. 1 Brooks est., 7,400 ft. S and W of NE cor. of R. & R. Vince Sur.
T.D. 800 ft.; W.O.C.

Loring Oil Co.'s No. 1 Westmoreland, Lot 1, Blk. 33, Westmoreland Add.
Fishing 7,661 ft.

W. U. Paul's No. 1 E. M. House, 2,300 ft. N and 1,000 ft. E of NE cor. of E. Benson Sur. in M. Magruder Sur.
Set 10-in. at 1,000 ft.; drlg. plug.

Southland Oil Co.'s No. 1 Galvey, SE cor. Sec. 4, Blk. 1, E.&T.C. Sur.
T.D. 4,751 ft.; S.D.

Texas-New York Dev. Co.'s No. 1 Raisor, 535 ft. from W line and 335 ft. from S line of Lot No. 13 in J. W. Moody Sur
Drlg. sandy lime 4,550 ft.

HOUSTON COUNTY

Boone Bros.' No. 1 Trinity Farm, Charles McTillis Sur.
Set 6⅝-in. csg. 2,222 ft.

JEFFERSON COUNTY

Magnolia Pet. Co.'s No. 1 E. Herbert Trust, 990 ft. N, 330 ft. E of SW cor. of P. E. Bell Sur. No. 2.
Drlg. sand and shale 5,158 ft.

Sun Oil Co.'s No. 1 H. Long, 1,500 ft. N line, 990 ft. E line of lease.
Top sand 3,585 ft.; T.D. 3,589 ft.; show oil and gas.

Turnbull & Irwin's No. 1 Tolivar, 1,900 ft. from N line and 1,400 ft. from W line of NW cor. of Shadric Merrie Sur.
Abd. 5,373 ft.

LIBERTY COUNTY

R. M. Bruner et al's No. 1 N. Bell, 150 ft. from N line and 150 ft. from W line of Bell's 187-ac. tract, H.&T.B. Sur. No. 4.
Rigging up.

Extension Oil Co.'s No. 1 J. A. Lovett, 200 ft. from E and 600 ft. from S line of lease, P. P. Deevers Sur.
Drlg. shale 3,079 ft.

Liberty-Independent Oil Co.'s No. 1 J. M Neal, 2,550 varas from E line and 600 varas from N line of Samuel Strong Sur
Drlg. 2,710 ft.
Magnolia Pet. Co.'s No. 1 Mace Stewart, 2,600 ft. E and 1,370 ft. S of NW cor. of 350-ac. tract in A. Cherry Sur.
Drlg. shale and lime 2,129 ft.
A. L. Maxwell's No. 1 M. D. Hinecliff, 300 ft. from E line and 1,000 ft. from N line of H.&T.C. Sur. No. 150.
Location.
Thomas et al's No. 1-A Eicke, 660 ft. from W line and 2,350 ft. from S line of tract in Green Sur.
T.D. 5,158 ft.; tested S.W. and S.D.
Turnbull and Irwin's No. 1 Lynott and Buffum, 466 ft. S and E of NW cor. of SE 100 acres of W 400 acres of 856-ac. tract, James Robeson Sur.
Digging pits; changing location.

MATAGORDA COUNTY

Continental Oil Co.'s No. 1 Robbins.
Cmtd. 6⅝-in. csg. 6,270 ft.
Dr. Griffith's No. 1 fee, 3,000 ft. from N line and 3,000 ft. from W line of Wm E Bell Sur.
Rigged up and drlg. water well.
Powers Prod. Co.'s No. 1 Northern Irrigation Co., 300 ft. E and 125 ft. N of Sec. of Lot No. 5, Blk. 9, I.&G.N. Sur.
Derrick.

MONTGOMERY COUNTY

Brown & Wheeler et al's No. 1 Jones, 440 ft. out of NW cor. of S 175 acres of 350-ac. tract.
Location.
Shell Pet. Corp.'s No. 1 Crighton, 1,480 ft W and 290 ft. S of NE cor. of lease in Mary Corner Sur.
T.D. 4,851 ft.; to make Schlumberger test.

ORANGE COUNTY

Blue Line Oil Co.'s No. 1 Godwin, Richard Ballew Sur., 300 ft. from E line and 150 ft. from NE line of Godwin 20-ac. tract.
T.D. 2,703 ft.; S.D.
Texas Louisiana Oil Co.'s No. 1 Starks, 2,450 ft. N of NW cor. M. Delano Sur. 68, 10.-500 ft. E at R/A.
T.D. 5,055 ft.; S.D.

POLK COUNTY

Howard Dailey et al's No. 1 Z. B. Knox 1,450 ft. W and 1,920 ft. S of NE cor. of F. Chairs Sur., 1¼ mile NE of Corrigan.
Spud and S.D.
Kirby Pet. Co.'s No. 2 Kirby, 466 ft. from N and E lines of J. Stephenson Sur.
Drlg. shale 3,065 ft.

REFUGIO COUNTY

Heard-Holland Oil Co.'s No. 1 Peck, 366 ft N and W out of NW and SW of Bonnie View Subd.
Prepare to deepen; T.D. 5,348 ft.
Quintana Oil Co.'s No. 2-A O'Connor, 450 ft. N and 450 ft. W of No. 1.
Drlg. 4,453 ft.; shale.
Quintana Oil Co.'s No. 1-B O'Connor, 139 ft. E line and 2,525 ft. S line of B.B.B.&C. Sur., Abst. 96.
Drlg. 4,710 ft.; shale.

SAN AUGUSTINE COUNTY

Fidelity Exploration Co.'s No. 1 Bryan & Flourney, 1,926 ft. from N and 725 ft. from E lines of Sec. 14, S.P.R.R. Sur
T.D. 2,005 ft.; S.D.; moving in heavy rig to drill to Woodbine.

SAN JACINTO COUNTY

Darby Jones' No. 1 McBee.
Sand and shale 2,017 ft.; S.D.

TYLER COUNTY

Woodley Pet. Co.'s No. 1 Acton Young, 330 ft. N and W lines, 350-ac. tract, J. Wheat Sur. 659. 2 miles S of Woodville.
Set 10-in. surface csg. 450 ft.; drlg. plug.

VICTORIA COUNTY

Humble O. & R. Co.'s No. 2 Mitchell, 6,500 ft. NW line, 7,000 ft. from SW line of Mitchell 5,000-ac. tract.
Shale 5,970 ft.
Texas Co.'s No. 1 J. B. Midgett, N 35 deg. W 1,000 ft. and S 55 deg. W 1,000 ft. from SE cor. of lease in T.&N.O. Sur., Sec. 14.
Cmtd. 10-in. csg. 1,273 ft.; T.D. 1,285 ft.

WALLER COUNTY

DeArman Bros. Drlg. Co.'s No. 1 Bains-Downman (100-ac. tract), 150 ft. SE line, 150 ft. SW line of John McFarland Sur.
Rigging up.

WHARTON COUNTY

Texas Gulf Prod. Co.'s No. 1 Kresta, 440 ft. N and E from SW cor. of tract in Sec. 54, W. B. Ivey Sur.
Reaming 4,401 ft.
Tri-State Oil Co.'s No. 1 Fojtek, 300 ft. SE and 114 ft. NE from W cor. of Lot No 33, S. F. Austin Sur.
Rigging up.

SOUTH LOUISIANA

ACADIA PARISH

Edwards Drlg. Co.'s No. 1 Daigle, NE cor of SE of Sec. 24-7s-1e.
Set csg.; T.D. 7,494 ft.

ALLEN PARISH

Humble O. & R. Co.'s No. 1 Industrial Lumber Co., 1,220 ft. W line and 2,440 ft. S line Sec. 21-3s-5w.
Drlg. 550 ft.

BEAUREGARD PARISH

Federal Pet. Co.'s No. 1-B Lutcher-Moore 6 miles NW of No. 1 Lutcher-Moore and near Fields.
Drlg. sand and shale 6,118 ft.

CALCASIEU PARISH

Fred Oil Co.'s No. 1 Faisst, 566 ft. N, 360 ft. W of SE cor. of NW of SE Sec. 26 8s-10w
S.D. 2,880 ft.
Fohs' No. 1 O. H. Castle, 330 ft. S and 330 ft. W of C Sec. 13-9s-8w.
Location.
Steinberger Pet. Co.'s No. 1 Drew, 330 ft out of NW cor. of NE¼ of Sec. 35-10s-11w, 6½ miles SW of Sulphur.
Location.
Union Sulphur Oil Co.'s No. 1 Calcasieu River, 1,940 ft. S, 2,580 ft. E, NW cor. Sec. 12-9s-3w.
Location.
Union Sulphur Co.'s No. 2 Barbe, 279 ft. S and 350 ft. W of NE cor of SE of Sec. 11-9s-3w.
Drlg. shale 7,618 ft.

EAST FELICIAN PARISH

Thompson Creek Oil Co.'s No. 1 Fannie Noland, 2,600 ft. E and 1,580 ft. N of SW cor. Sec. 70.
Spudded.

CAMERON PARISH

Texas Co.'s No. 10-A State, 16,855 ft. W and 3,270 ft. N of NE cor. Sec. 1-14-9w in Twp. 13s-9w.
Salt 6,721-6,870 ft.

EVANGELINE PARISH

L. Puckett's No. 1 Vidrine, 500 ft. S of old J. E. Ladeau's No. 3 Goodwin and approximately 4,500 ft. E and 1,700 ft. N of SW cor. of Sec. 34-3s-2e.
Location.

IBERIA PARISH

Diamond Corp.'s No. 1 Edmond Victor, 1,900 ft. E and 450 ft. from SW cor. of Sec 41-12s-5e
Drlg. 1,800 ft.

IBERVILLE PARISH

Gross Pet.'s No. 1 Angelloz.
Set csg. 2,270 ft.

JEFFERSON DAVIS PARISH

Tide Water Oil Co.'s No. 1 Mrs. A. Bourgeois, 250 ft. E and 295 ft. S of C of Sec 28-9s-5w.
T.D. 6,107 ft.; P.B. to 5,050 ft.; sidetracked to 5,316-33 ft.; tested S.W.

LAFOURCHE PARISH

Barnedall Oil Co.'s No. 3 Harang Plantation
Drlg. 5,500 ft.
R. L. Gay, trustee's No. 1 Godchaux, 2,930 ft. N and 1,746 ft. E in common cor. of Lots 34 and 36, Twp. 15s-19e.
Recmtd. csg.; T.D. 6,360 ft.
Southern Sulphur Corp.'s No. 1 D. L. Lagraize, 800 ft. E of NW cor. of Lot 7 thence 250 ft. S of Sec. 26-21s-22e.
Spudded and S.D

PLAQUEMINES PARISH

Venice Corp.'s No. 1 Burras.
S.D. 1,533 ft.

RAPIDES PARISH

C. D. Loe's No. 1 Barrett, 330 ft. NW of SE line and 330 ft. NE of SW line of Sec 40-5n-1w.
Rigging up.

ST. BERNARD PARISH

Danciger's No. 1 Battles, 336 ft. N, 2,199 ft. W of SE cor. Sec. 135-14s-14e.
No report.

ST. LANDRY PARISH

Bailey Gaunce's No. 1 Lewis, 300 ft. N and E of SW cor. of NW of NE of Sec. 29-5s-6e (workover).
S.D. 5,043 ft.

ST. MARTIN PARISH

Texas Co.'s No. 6 St. Martin Land Co., 660 ft. S and 500 ft. W of NE cor. SE Sec 17-8s-7.
Drlg. 8,130 ft.

ST. MARYS PARISH

Black et al and Edwards Drlg. Co.'s No. 1 Chetimancha, Sec. 34-13s-9e. 219-ac. tract approximately 500 ft. at right angles SE and SW lines of tract.
T.D. 6,501 ft.; S.D.

VERMILLION PARISH

Moore Bros.' No. 1 Brussard, 350 ft. S of N line, 250 ft. E of W line NE cor. Sec. 32-11s-3e.
T.D. 4,056 ft.; fishing.

La.-Ark. Wildcats

(Continued from Page 56)

ft. S and W, NE cor. Sec. 26-19-3e.
Rigging up.

RED RIVER PARISH

Louis L. Glass' No. 1 Dickson, 400 ft. S and W, NE cor. NW SE Sec. 32-12-8.
S.D. 1,004 ft.
Kincaid & Kelly's No. 1 Ober, 315 ft. N, 357 ft. W, SE cor. NW SE Sec. 5-14-10.
Dry and abd. 2,915 ft.
A. D. Mytiler's No. 1 La. Delta Pecan Co., 1,700 ft. N, 160 ft. E. SW cor. Sec. 27-13-11.
S.D. 857 ft.
Oynett et al's No. 1 Thomas, 330 ft. S and E, C Sec. 34-13-8.
S.D. for fuel 740 ft.
W. K. Williams' No. 1 DeMoss Est., 900 ft. S, 330 ft. W. NE cor. Sec. 33-13-11.
Fishing for D.S. 2,465 ft.

SABINE PARISH

R. B. Campbell et al's No. 1 Cook Land Co., 150 ft. N, 300 ft. W. SE cor. NW NW Sec. 35-10-12.
Reaming to bottom 1,586 ft.
G. H. Collins' No. 1 Bellieu & Carter, 320 ft. S and W, NE cor. NW SW Sec. 21-9-13.
Tested dry 2,070 ft.; S.D.: W.O
Gerhig Oil Co.'s No. 3 Burkett, 330 ft. N and E. SW cor. SE SE Sec. 9-9-13.
Rigging up.
Graham & Dalton's No. 1 Burkett, 330 ft. N and W of C Sec. 16-9-13.
W.O.S.R. 1,993 ft.
Halliburton & Meadows' No. 1 Jackson, 330 ft. S and E. NW cor. NE NE Sec. 15-9-13.
Testing 1,998 ft.
Laurel Pet. Co.'s No. 7 Frost Ind., Sec. 20-9-13.
Comp. pumping 150 bbls., 1,961 ft.
Zan Lloyd's No. 1 Henderson, 330 ft. N and W, C Sec. 29-9-13.
W.O.S.R. 2,031 ft.
Dr. O. B. Hicks' No. 1 Neal, SE SW SE Sec. 18-9-12.
Set 10-in. 40 ft
W. H. Rowe et al's No. 1 Craig, 330 ft. S and E of C Sec. 32-9-13.
S.D. 1,200 ft.
J. A. Stinson's No. 1 Whitney Corp., 330 ft. S and W, NE cor. Sec. 9-9-13.
Comp. pumping 10 bbls., 1,963 ft.
Valley-Cage Oil Co.'s No. 1 Burkett, 330 ft. S and W NE cor. SW NE Sec. 16-9-13.
W.O.S.R. 1,963 ft.

RAPIDES PARISH

Evans & Collingsworth's No. 1 Hickman, 330 ft. S and E, NW cor. Sec. 40-4-1e.
S.D. 2,130 ft.
C. D. Loe, Trustee's No. 1 Baird Est., SE cor. Sec. 40-5n-1w.
Rigging up.

WEBSTER PARISH

Abney Oil Corp.'s No. 3 Slack, 660 ft. N, 575 ft. W. SE cor. NE SE Sec. 36-22-11
S.D.; W.O. 2,714 ft.
Gulf Ref. Co.'s No. 1-A T. Crichton, est. 330 ft. S and W, C Sec. 15-18-9.
Drlg. 2,514 ft.
M. J. Kissick's No. 1 Cook, 953 ft. N, 695 ft. E. SW cor. NW NE Sec. 2-22-11.
Set 10-in. 285 ft.; drlg. 1,650 ft.

WINN PARISH

Red River Ref. Co.'s No. 2 Tremont Lbr. Co., 480 ft. N, 150 ft. E, SW cor. SE SE Sec. 26-11-1w.
Dry and abd. 1,463 ft.

ARKANSAS

CALHOUN COUNTY

R. J. McMurray et al's No. 1 Calhoun Lbr. Co., 330 ft. N and E SW cor SW NE.
Dry and abd. 3,205 ft.

HEMPSTEAD COUNTY

Ark. Drlg. Co.'s No. 1 Jones, 1,000 ft. S. 600 ft. W, NE SE Sec. 11-14-24.
Drlg. wtr. well 166 ft.
E. A. Austin's No. 1 McWilliams, 300 ft. N and W of SE cor. NW SW Sec. 19-13-23.
S.D. 700 ft.
A. H. Bagnelle's No. 1 Trattner & Rhinehart, Sec. 2-13-26
S.D. 1,992 ft
F. W. Martin & Co.'s No. 1 Lafferty, 500 ft. N and W SE cor. NW Sec. 17-14-24.
Set 10-in. 110 ft.

LAFAYETTE COUNTY

Benedum & Trees' No. 1 Bodcaw Lbr. Co., C NE NE Sec. 19-16-23.
Drlg. 3,515 ft.
Douglas Lawn's No. 1 Camp, 330 ft. S and W, NE cor. SW SE Sec. 14-15-23.
S.D. 2,644 ft.

MILLER COUNTY

Bloomburg Oil Corp.'s No. 1 Patterson, 300 ft. N, 75 ft. W, SE cor. SE NE Sec. 5-19-28.
Drlg. 1,980 ft.
Duluth-Ark. Oil Co.'s No. 3 Beck, SW cor. SE SW Sec. 34-15-26.
Set 7-in. 2,945 ft.
Fitzwater et al's No. 1 Norson, SW cor. SE SW Sec. 20-15-27.
S.D. 3,177 ft.
Ark. Oil, Gas & Ref. Co.'s No. 1 Beck, SW cor. NW SW Sec. 34-15-26.
Drlg. 1,500 ft.
King Oil Corp.'s No. 1 C. H. Schroder, 200 ft. N, 330 ft. E, SW cor. SW NE Sec. 24-14-28.
S.D.; repair boiler 2,288 ft.; corrected.
W. F. Lacey's No. 1 Gibson, 330 ft. S and E. NW cor. SW NW Sec. 30-19-27.
S.D. 3,808 ft.
Magnolia Pet. Co.'s No. 4 Olivet, 330 ft. S and W, NE cor. Sec. 4-16-26.
Set 12¼-in. 230 ft.; drlg. 1,210 ft.
Oil Well Oil Corp.'s No. 1 Dodd, 300 ft. S. 200 ft. E, NW cor. SW NE Sec. 10-19-28.
Set 10-in. 295 ft.
Texarkana Oil Corp.'s No. 3 E. H. Beck, 330 ft. S and W NE cor. SE SE Sec. 33-15-26.
W.O.S.R. 2,927 ft.
John Wrather's No. 1 Beck, SW cor. SW SE Section 34-15-26.
Running tubing to test 2,932 ft.

NEVADA COUNTY

O. F. Whittaker's No. 1-B Guttry, C SE SW Sec. 2-15-20.
Drlg. 1,690 ft.

OUACHITA COUNTY

F. A. Book et al's No. 1 Arnold, Sec. 34-15-16.
S.D. 2,032 ft.
T. J. Gaughan's No. 1 Bragg, 330 ft. N and E. SW cor. NE SE.
Set 10-in. 104 ft.
J. D. Reynolds' No. 1 Guttry, 452 ft. S, 150 ft. W, NE cor. NE SW Sec. 21-15-19.
W.O.S.R. 1,506 ft.

UNION COUNTY

Alexander-Head Oil Co.'s No. 1 Union Saw Mill Co., 330 ft. S and E, NW cor. SW Coring 3,306 ft.
Mrs. R. K. Jones et al's No. 1 J. Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Arrng. to test 2,764 ft.
McCreslenn Oil Co.'s No. 2 G. Norman, 330 ft. N and W, SE cor. SE NE Sec. 3-18-13.
Rigging up.
McCreslenn Oil Co.'s No. 1 Union Saw Mill Co., 330 ft. N and W, SE cor. NE NW Sec. 3-18-13.
P.B. from 3,577 ft.
Marine Oil Co.'s No. 1 Parker, 330 ft. N and E SW cor. NE NW Sec. 2-18-13.
S.W. and abd. 3,722 ft.
Marine Oil Co.'s No. 2-B Union Saw Mill Co., 330 ft. N and E. SW cor. SW NW.
Comp. pumping 75 bbls., 3,590 ft.
Tubal Pet. Co.'s No. 1 Gaddy, 340 ft. N and E, SW cor. SE NW Sec. 14-17-14
S.D.; W.O. 3,416 ft.

MISSISSIPPI

AMITE COUNTY

Mineral Resources, Inc.'s No. 1 Anderson. C NE NW Sec. 14-3n-3e.
S.D. 550 ft

CLARKE COUNTY

Clarke County O. & G. Co.'s No. 1 Kirkland, 1,320 ft. S, 660 ft. E NW cor. Sec. 10-2n-16e.
Drlg. 2,150 ft.

HINDS COUNTY

Alexander & Weaver's No. 1 Mayer & Gordon, 552 ft. W, 217 ft. S NW cor. NE Sec. 36-6n-1e.
Rigging up.
Atkins & Hightower's No. 1 Sanders, 200 ft. S and E NW cor. SW Sec. 30-6n-2e.
Drlg. 250 ft.

JONES COUNTY

Snow-Black Pet. Co.'s No. 2 Watson, 529 ft W, 200 ft. S, C Sec. 24-7n-13w.
S.D. 3,100 ft.

LAMAR COUNTY

Hix & Germany's No. 1 Newman Lbr. Co., 200 ft. N, 10 ft. E of C Sec. 21-4n-15w.
Drlg. 225 ft.

RANKIN COUNTY

Love Pet. Co.'s No. 1 Pearl River Lbr. Co., Sec. 15-6n-2e.
Drlg. 3,720 ft.

SIMPSON COUNTY

Berry Corp.'s No. 2 R. T. Berry, Sec. 33-2n-4e.
Set 7-in. 2,043 ft.

WALTHALL COUNTY

Mutual O. & G. Co.'s No. 1 Boyd, SW cor. SW SE Sec. 24-2n-9e.
Moving in rig.

WARREN COUNTY

Orbet Drlg. Co.'s No. 1 R. L. Parker, 300 ft. E, CWL Sec. 14-14-1e.
S.D. 3,165 ft.

WASHINGTON COUNTY

Perkins & Dees' No. 1 Lee, 1,500 ft. E, 500 ft. N, SW cor. Sec. 33-15n-8w.
Set 10-in. 300 ft. and S.D. (corrected).

WINSTON COUNTY

Jack Vale et al's No. 1 Moody, 718 ft. N, 667 ft. E, SW cor. NW SW Sec. 3-13n-14e.
Rigging up.

La.-Ark. Proven Fields

NORTH LOUISIANA

CADDO—BLANCHARD

Louana O. & G. Co.'s No. 2 Lindsey, 450 ft. N and E, SW cor. NW SW Sec. 34-19-16.
Dry and abd. 946 ft.

CADDO—HOSSTON

Bayou State O. & G. Co.'s No. 1 Connell, 1,990 ft. N, 1,198 ft. E, SW cor. Sec. 15-21-14.
W.O.S.R. 964 ft.
C. G. Gibbon's No. 1 Burglass, 578 ft. N, 660 ft. W, SE cor. NE NE.
Drlg. 1,210 ft.
Shore Line Oil Co.'s No. 43 Crystal, Sec. 18-21-16.
Drlg. 1,060 ft.
Shoreline Oil Corp.'s No. 44 Crystal, 320 ft. S and E of C Sec. 18-21-16.
Rigging up.
Shore Line Oil Corp.'s No. 2 Harrell, 250 ft S and E of C Sec. 2-21-16.
Set 7-in. 1,021 ft.
Shore Line Oil Corp.'s No. 1-B Standard, 350 ft. N and W, SE cor. Sec. 12-21-16.
Recmtd. 1,058 ft.

CADDO—RODESSA

Ark.-La. Pipe Line Co.'s No. 1 Parker, 725 ft. S, 450 ft. E, NW cor. NE NW, Sec. 26-23-16.
Drlg. 4,070 ft.
United Gas Pub. Ser. Co.'s No. 1 Christian, 724 ft. N, 1,382 ft. W SE cor. Sec. 23-23-16.
Set 9⅝-in. 3,278 ft.

SABINE PARISH—ZWOLLE

Alexander & Cane's No. 1 Fogman, SE cor. N½ SW NE Sec. 18-7-11.
S.D. 1,700 ft.
Ivan A. Allen's No. 1 La. Long Leaf, 330 ft. N and W, SE cor. NW SE Sec. 12-7-11.
S.D. 1,920 ft.
Dyer et al's No. 1 McCollister, 330 ft. S and E. NW cor. SW NE Sec. 24-7-12.
S.D. 1,100 ft.
Foster & Hartman's No. 1 Bowman-Hicks, 330 ft. S and E, NW cor. NE Sec. 10-7-12.
S.D.; W.O. 2,694 ft.
E. D. Holcomb's No. 1 Porter, 330 ft. S. 330 ft. W, NE cor. SE Sec. 7-7-11.
W.O.S.R. 2,580 ft.
H. C. Maulding's No. 2 DeLatin, 330 ft. S and E. NW cor. NE SE Sec. 3-7-11.
S.D. 2,250 ft.
Monroe Prod. Co.'s No. 1 Bowman-Hicks, 330 ft. N and E SW cor. SW SE.
Dry and abd. 2,480 ft.
Geo. L. Pace's No. 1 Ritter, 430 ft. N, 330 ft. E, SW cor. SW SE Sec. 26-8-12.
Fishing for D.S. 1,308 ft.
Pelican Nat. Gas Co.'s No. 33 La. Long Leaf, 183 ft. S, 283 ft. E, cen. Sec. 29-8-11.
Tested dry 2,636 ft.; S.D.; W.O.
Pelican Nat. Gas Co.'s No. 44 La. Long Leaf, 100 ft. S and E, NW cor. NE SW Sec. 17-7-11.
Set 10-in. 65 ft.; drlg. 3,300 ft.
Pelican Nat. Gas Co.'s No. 14 Sabine Lbr. Co., 330 ft. N and W, SE cor. NE SW Sec. 11-7-12.
Tested dry; W.O. 2,642 ft.
Tex.-La.-Ark. Oil Co.'s No. 1 Pickering Lbr Co., Sec. 3-3-12.
Drlg. 2,240 ft.

EAST TEXAS (BORDER COUNTIES)

CASS COUNTY

R. K. Kamon et al's No. 1 Savage, Mary Patterson Sur.
S.D. 4,016 ft.

HARRISON COUNTY

R. C. Payne et al's No. 1 Lowery, E. D Spain Sur.
P.B. to 3,524 ft.

PANOLA COUNTY

R. H. Davis' No. 1 Wooten Est., Winnie Mann Sur.
S.D. for wtr. 1,906 ft.
Givens & Holloway's No. 1 Wooten est Winnie Mann Sur.
Drlg. 1,270 ft.
R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Rigging up.
Fred Stovall Drlg. Co.'s No. 1 H. B. Ivey, P. Martin H.R.S.
Rigging up.

SHELBY COUNTY

Bush Oil Int.'s No. 1 Windham, W. M Blackburn Sur.
S.D. 2,866 ft.
Cliff Stovall's No. 1 Pickering Lbr. Co., G. H. Patterson Sur.
Set 10-in. 20 ft.
Turner & Neil's No. 1 Pickering Lbr. Co., P. W. Harvey Sur
S.D. 250 ft.

ALABAMA

CLARKE COUNTY

Magnolia Pet. Co.'s No. 1 Scotch Lbr. Co., 350 ft. N, 330 ft. E, C Sec. 17-10n-3e.
Dry and abd. 6,010 ft.

HOUSTON COUNTY

Rice O. & G. Co.'s No. 1 Oakley est., SW cor. NW SW Sec. 9-3n-29e.
S.D. 1,810 ft.

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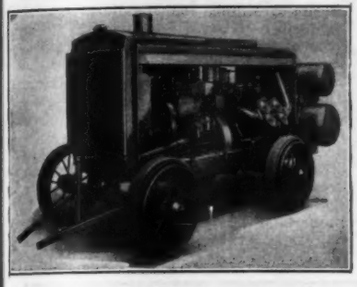
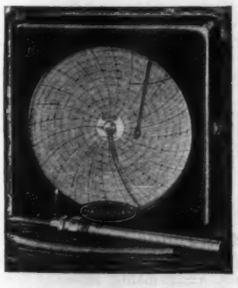


Ingersoll-Rand Co., 11 Broadway, New York. This unit, shown in the accompanying illustration, is built in five sizes, ranging from 75 to 370 cfm. piston displacement. It is supplied in a large variety of mountings, from a steel-wheel mounting, with a towing speed of 10 mph., to the two-wheel trailer mounting, which can be towed by a truck at 35 mph.

Both the oil-engine driven and the gasoline-engine-driven units are shown in a new bulletin, obtainable on request, which gives details as to fuel saving that can be expected. The savings described are those that result from two-stage operation, the use of an air-cooled intercooler, and from certain design features.

Recording Thermometer Is New Mason-Neilan Offering

A new recording thermometer announced by the Mason-Neilan Regulator Co., 1190 Adams Street, Boston, Mass., is furnished in an attractive square Duralumin case with chromium-plated hinges



and hasp. It is equipped with floating coil clamp, which it is said increases its accuracy by eliminating friction and lost motion.

These instruments may be equipped with the new overheat protector, a safety feature which protects the thermal element if temperatures exceed the instrument range. It is said that with this new protector excess temperatures of 500° F. over the maximum chart range will cause no damage.

Recorders with multiple pens for recording several different temperatures can be provided if desired. All parts are standardized and are interchangeable with other Mason-Neilan temperature control instruments.

The Mine Safety Appliances Co., Pittsburgh, Pa., has for applicants a bulletin describing the MSA Comfo respirator, for use as a protection from dust.

Notes About Trade Literature

General specifications for A. C. motor-driven types SA300, SA400, and SA600 Lincoln Shield Arc welders are given in a bulletin obtainable from the Lincoln Electric Co., Cleveland, Ohio.

—

Gas engines, Ratbun type, for natural, refinery and manufactured gas fuels are the subject of a 12-page illustrated booklet sent on request by the Ingersoll-Rand Co., Phillipsburg, N. J.

—

Two bulletins, one on horizontal duplex piston pumps for general service and the other on steam booster compressors, may be obtained from the Worthington Pump & Machinery Corp., Harrison, N. J.

—

Publication of a new eight-page illustrated booklet entitled, "101 Uses for the Air Acetylene Flame," and convenient as a repair shop reference guide, is announced by the Linde Air Products Co., 30 East Forty-second Street, New York.

—

Catalog No. 12, issued by the Shafer Bearing Corp., 6501 West Grand Avenue, Chicago, is a 50-page booklet giving information about Shafer selfaligning roller-bearing units.

—

A new publication, "Polaricode, Jr., Supervisory Controll," has been published by the Westinghouse Electric & Manufacturing Co. It describes the application, distinctive features and operation of this simplified supervisory control system, applicable for oil line pumping stations, etc.

—

The Beaver pipe reamer and the Nos. 70 and 72 series die stocks are additions to the Beaver line of tools described in the newest bulletin issued by the Borden Co., Warren, Ohio.

—

A 12-page bulletin descriptive of Lane-Wells liner hangers, setting tools and adapters has been issued. Engineering drawings, operating instructions and general information are included. Copies are available upon request to the Lane-Wells Co., 4439 Santa Fe Avenue, Los Angeles, Calif.

—

A request to the Young Radiator Co., Racine, Wis., will bring literature telling about its heavy-duty radiators of the type used in oil field service.

—

The Duriron Co., Dayton, Ohio, is sending on request a four-page bulletin on centrifugal pumps for acids and alkalies.

—

The new Martin-Decker drilling control catalog may be had by addressing the Martin-Decker Corp., Box 249, Long Beach, Calif. This catalog describes a new drilling control instrument which combines in one 12-inch gauge case the weight indicator, the supersensitive weight indicator, mud pump gauge, torque and rotary table tachometer.

—

R. C. Williams & Co., Wayne, Ohio, is sending on request literature on the Williams lower valve puller.

—

A request sent to Synthane Corp., Oaks, Pa., will bring a bulletin describing Synthane-Risonite explosives containers, for use in shooting oil, gas or water wells.

—

"How to Design Simple Refrigeration Systems" is among interesting articles in the current issue of The Armstrong Trap Magazine, published by the Armstrong Machine Works, Three Rivers, Mich.

—

Literature describing and illustrating Stanley nonsparking tools, made from Anaconda wrought beryllium copper and including hammers, screwdrivers, cold chisels, etc., may be obtained from Stanley Tools, New Britain, Conn.

Cameron Ram-Type Blowout Preventer Devised in 1922

The Cameron Iron Works, Houston, Tex., built a practical ram-type blowout preventer for use in high pressure fields in 1922 and it was used by the Monarch Oil & Refining Co. in drilling a well in the Hull Field. J. S. Abercrombie, at that time a drilling contractor, presented the rough idea to Harry Cameron, proprietor of the iron works in which Mr. Abercrombie held an interest, and Mr. Cameron worked out the finished product. Mr. Abercrombie expressed his opinion that the device should be in the form of a tee, and should have round rams with a new type of packing which would prevent the escape of pressure around the rams. Mr. Cameron developed a lip type packing which is said to have proved satisfactory and which is still used. The first preventer had one casing outlet and was manually operated. It represented so revolutionary an advancement the idea took hold slowly. Recently the company shipped two of the largest blowout preventers ever made, size 18⅝-inch, for use in a foreign country.

Men Well Known in the Equipment Field

E. M. Smith, president of the Emsco Derrick & Equipment Co., has appointed Harry C. Morehouse as sales manager of the machinery division of Emsco Derrick

HARRY C. MOREHOUSE

& Equipment Co. to succeed C. D. Wagner, who has been made vice president and manager of the D + B Pump & Supply Co., division of Emsco.

Mr. Morehouse, a graduate of the University of Colorado, has long been active in the sales and engineering work of the supply business and for the past eight years has been assistant to E. W. Goeser, vice president and manager of production, also acting as liaison man between the engineering, manufacturing and sales departments.

CLEANS GAS OF DIRT AND DUST

The B-T gas cleaner, developed by the Burrell-Mase Engineering Co., 1606 Law and Finance Building, Pittsburgh, Pa., consists of a horizontal cylindrical tank containing a bed of iron turnings which is continuously washed with oil falling over the turnings from an overhead trough. The oil is forced to the trough from the bottom reservoir by the lifting action of the gas itself. The gas strikes the bed of oil-covered iron turnings at a relatively high velocity, throwing down into the oil suspended particles of dust and dirt. It is further washed as it passes through the bed of turnings. The cross sectional area of the apparatus is large so that it has large cleaning capacity. A unit 4 feet in diameter by 14 feet long will handle 1,800,000 cubic feet of gas per hour at 250 pounds per square inch pressure. The device can be built of any size to handle any quantity of gas.

HANLON-WATERS CATALOG

Hanlon-Waters, Inc., Tulsa, has ready for distribution its complete catalog of equipment for production, pipe line, natural gas, natural gasoline plant and refinery operations. The catalog is divided into seven general sections covering oil and gas separators, automatic regulating and control equipment, bolted tanks, boomer (load binder), boiler gauge cocks, victaulic pipe couplings and American air filters. The book is copiously illustrated.

Central West Fields

(Continued from Page 51)

1 Charles and Louisa Schmitt farm, NW SW Section 20.

In Porter County, F. S. Hollingsworth is drilling on the Kenneth Wolf farm, Section 26. In Henry County, Knightstown Natural Gas Co. is drilling No. 3 Hazel Crouse farm, Section 25, Wayne Township.

In Warrick County, Dr. C. C. Taliaferro, Jr., is drilling No. 3 Henry Kohle farm, NW NW Section 28.

CENTRAL OHIO

Central Ohio is the most active field in the Central West at this time. In Ashland County, Moor and others' No. 8 on the George W. Black farm, Lot 34, Mohican Township, produced 30 bbls. initial. Kenova Oil & Gas Co.'s No. 7 on the Mahlon Drushell farm, Lot 16, is nearing pay sand. Ohio Fuel Gas Co. is drilling No. 1-5,839 John Mucher farm, Section 3, Hanover Township, and No. 1-5,856 Charles H. Stanley farm, Section 18, Sullivan Township.

In Medina County Oko Oil & as Co.'s No. 65 Henry Essig farm, Lot 13, produced 2 bbls. initial at 495 feet. D. A. Lake's No. 15 on the Pearl and Frank Weaver farm, Lot 1, Litchfield Township, produced 10 bbls. initial at 310 feet. Hulse and others' No. 8 Des Noyes Realty Co. farm, Lot 78, is a gas well. In York Township William Strittmatter's No. 2 on Strittmatter farm, Lot 16, is a gas well.

In Lorain County, Ohio Fuel Gas Co. is starting No. 1-5,895 on the Adelia M. Hoskins farm, in Eaton Township, and has made a location for No. 1-5,857 Jane Burton farm, Lot 29, Grafton Township. In Russia Township, R. E. Cain has a rig for No. 1 Isabel Gain farm, Lot 86.

In Holmes County, Lydic Oil & Gas Co.'s No. 4 William Martin farm, Section 22, Monroe Township, is a gas well from 752 to 768 feet. Also in Monroe Township, Ohio Fuel as Co. has a location for No. 1-5,886 on the Bert B. Timmie farm, Section 26. Same company is drilling No. 1-5,848 Leo J. Haudenschild farm, Section 15, Washington Township, and has a rig for No. 1-5,855 Morgan A. Quick farm, Section 28, same township.

In Huron County, J. E. Ringle's No. 1 Lewis Stiles farm, Lot 17, Fitchfield Township, is a gas well.

In Knox County, R. H. Bright's No. 29 Mary McKee farm, Section 29, Harrison Township, produced 5 bbls. initial at 748 feet. Lacknett and others' No. 1 George Lepley farm, Lot 4, Butler Township, is drilling.

In Coshocton County, Preston Oil Co.'s No. 1-544 Bertha E. Barret farm, Newcastle Township, produced 112 bbls. initial. Ohio Gas Light & Coke Co.'s No. 2 Nicholas Lower farm, Section 10, Mill Creek Township, is a gas well in the Berea sand at 850 feet.

In Jefferson Township, Local Oil Co.'s No. 1 James H. Crawford farm, Section 29, Island Township, Jefferson County, was dry at 1,400 feet.

In Licking County, Preston Oil Co.'s No. 2-1,551 Mauk farm, is a gas well in Section 16, Perry Township.

In Muskingum County, Pure Oil Co.'s No. 4 Albert Holeman farm, Section 6, Jackson Township, was dry. In Brush Creek Township, Fritz Oil & Gas Co.'s No. 2 Orin Perdew farm, Section 4, is a gas well. Hopewell Fuel & Gas Co.'s No. 1 Albert P. Dozer farm, Section 9, same township, is a gas well, and Pure Oil Co.'s No. 1 Francis N. Norman farm, Section 22, same township, is a gas well.

In Athens County, C. W. Nuzum's No. 1 Warren Munn farm, Fractional Section 5, Rome Township, was dry.

In Stark County, East Ohio Gas Co.'s No. 1 John W. Essig farm, Lot 2, Jackson Township, is a gas well at 4,264 feet.

In Belmont County, Richland Development Association's No. 4 Lockray farm, NE Section 25, Richland Township, produced 5 bbls. from the Berea sand at 2,014 feet, and No. 5, same farm, produced 8 bbls. initial at 2,067 feet.

In Guernsey County, George Jewell's No. 1 Cowden-Henderson farm, Seltion 28, Milwood Township, is a gas well. M. J. Purdy's No. 1 Wilbur Frank farm, Section 10, same township, produced 19 bbls. initial at 1,338 feet. George Jewell and others' No. 1 Claud Evans farm, Lot 18, Center Township, was dry at 1,330 feet. Smith & Urban are drilling No. 1 C. F. Smith farm, Lot 27, same township. George Jewell and others' test on the Joe Polasky farm, Section 2, Willis Township, is a gas well. Gordon Oil Co. is drilling No. 2 Charles Wigeston farm, Section 35, Oxford Township.

In Vinton County, Dave Vance and others' No. 4 J. A. Newson farm, Section 10, Wilkesville Township, is a gas well at 4,732 feet.

In Meigs County, Joe Rubin's No. 1 Everett Mosier farm, Section 25, Lebanon Township, is a gas well at 2,022 feet. Holmes & Mayer's No. 1 on the Abner Price Williams farm, Lot 145, same township, is a gas well at 1,985 feet. In Rutland Township, Rutland Gas Co.'s test on the L. M. Haley farm, Lot 8, is a gas well at 766 feet.

KENTUCKY

The Kentucky Field is showing an active development in Ohio, Daviess, Hancock, McLane Counties and the wells are bringing much territory into play. In Ohio County, W. E. Hupp & Co.'s No. 10 J. W. O'Dell farm, produced an initial of 50 bbls. Same company's No. 11 O'Dell farm produced 75 bbls. initial. No. 12, also on the J. W. O'Dell farm, produced 75 bbls. Miller and others' test on the Oscar Ford farm, south of the Ellmitch Pool, Ohio County, was a 750,000-foot gas well. Petroleum Co.'s No. 2 in the northeast corner of the C. H. Downs farm, was dry at 550 feet. Mecca Oil Co.'s test on the R. J. Roberts farm was dry at 650 feet. Stewart & Gealey found a dry hole on the J. R. Roberts farm at 450 feet. James B. Mayer's No. 1 James Newton farm is a gas well. Kentucky Natural Gas Co.'s No. 2 C. H. Duggins farm produced an initial of 150 bbls. Snowden-McSweeney Co.'s No. 3 on the G. E. Fuqua farm showed an initial of 40 bbls. and No. 4, same farm, an initial of 25 bbls.

In Hancock County Ivyton Oil & Gas Co.'s No. 2 Joe C. Smith heirs farm produced 75 bbls. initial. Joseph Mayer's No. 3 and 4 Jess B. Stewart farm had an average initial production of 20 bbls. each.

California Fields

(Continued from Page 60)

doing 41 bbls. of 21.2 gravity oil per day. The General Petroleum is rotating ahead in the oil sand in No. 8-A Tonner, a new well, in the Brea Olinda Field, and it should be given a production test within the next 30 days.

In the Huntington Beach Field, the Standard Oil Co. has recompleted No. 7 Bolsa Chica after cleaning out the hole to bottom, 3,760 feet, and this well was returned to production pumping 91 bbls. of 24.3 gravity oil per day. The output is still cutting rather high and hence the well may require some further work. In the Santa Fe Springs Field, Pedro Petroleum Corp. has recompleted No. 3 Fulton pumping 178 bbls. of 34.3 gravity oil per day from 4,500 feet. This well is an old abandoned hole which was taken over by the Pedro Oil Co. several months ago and redrilled.

Elwood

Two new wells are schedule for completion in the Elwood Field of Santa Barbara County within the next fortnight and both of them are expected to show commercial production. The most important of these two wells is the Barnsdall and Rio Grande's No. 8 Doty, as this project is being prepared for production in the Sespe at 5,732 feet with an excellent prospect of showing substantial production. The other potential producer in this field is the Pacific Western's No. 12 in tideland permit No. 92, which is standing cemented on top of the Vaqueros pay at 4,256 feet. In the Goleta Field, the Standard encountered a badly fractured formation in No. 2 Chase & Bryce, at 4,850 feet and the company was obliged to pump in 642 sacks of cement in order to facilitate redrilling operations. The Shell's No. 1 Biship in this district is rotating ahead in a hard shale at 2,891 feet.

The General Petroleum has re-entered No. 9 Erburu in the Capitan Field of Santa Barbara and is deepening the hole in search of better production. This well showed a potentiality of 210 bbls. per day on a recent test. No. 1 Covarrubias of the Shell in this field is standing cemented at 1,883 feet. There are two wells under way in the Los Alamos area of Santa Barbara County at the present time and both of them may bear watching. These two tests are Petroleum Securities' No. 1 Los Alamos at 1,710 feet and No. 1 Sisquoc of the Royalty Service Corp. at 515 feet. The Fairview Oil Co. is held up with mechanical trouble in its test in the Purisima district at 2,980 feet.

The Property Service Corp. is working on an important outpost in the Ventura Avenue Field and this well, which appears to be running rather high structurally, will bear watching during the next few weeks as it is given better than an even chance of resulting in commercial production. It is located on the Dabney-Lloyd lease about 1 mile east of the most easterly producer in the Ventura Avenue Field which happens to be No. 101 Lloyd of the Associated Oil Co. out near Hall's Canyon. The Associated had the misfortune to run into a fishing job on No. 133 Lloyd, which is projected for completion in the deep 57 zone, and consequently progress is being delayed at 9,218 feet pending recovery of the fish. The Shell located water in No. 77 Taylor, a deep well, at 8,880-8,910 feet and consequently the company has a problem on its hands as the bottom of the hole is at 9,482 feet.

CANADIAN ENGINEERS TO MEET

CALGARY, Alberta, Aug. 25.—Preparations are being made for the annual western convention of the Canadian Institute of Mining and Metallurgy here on September 13, with an estimated attendance of 200 delegates. A feature will be the official unveiling of the memorial at Banff to the late Donaldson Bogart Dowling, an eminent Canadian geologist, associated with the early petroleum researches in the Canadian West. Dr. J. B. Tyrrell of Toronto is expected to officiate. In addition to papers and addresses in connection with mining topics, the oil industry will be handled by R. L. Sutherland, C. W. Dingman, S. G. Coultis, R. M. Owen and S. E. Slipper.

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